Appendix E

Laboratory Reports



LABORATORY REPORT

Prepared For: Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project: Title 22 Testing

Title 22 Testing

Sampled: 08/14/08 Received: 08/14/08

Issued: 10/07/08 07:39

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, I page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 2°C, on ice and with chain of custody documentation.

HOLDING TIMES: Not all holding times were met. Results were qualified where the sample analysis did not occur within

method specified holding time requirements.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID CLIENT ID MATRIX
CRH0590-01 Ryken-Well-S-1 Water

Reviewed By:

Molissa Curringham

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing

11001 Etiwanda Avenue Sampled: 08/14/08 Fontana, CA 92337 Report Number: CRH0590 Received: 08/14/08

Attention: Mike Haslam

Layne Christensen

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-Well-S-1 -	Water							
Reporting Units: ug/l	ii atti							
Benzene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Bromodichloromethane	EPA 524.2	C8H2502	1.0	ND	1	8/25/2008	8/25/2008	
Bromoform	EPA 524.2	C8H2502	1.0	ND	1	8/25/2008	8/25/2008	
Carbon tetrachloride	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Chlorobenzene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Chloroform	EPA 524.2	C8H2502	1.0	ND	1	8/25/2008	8/25/2008	
Dibromochloromethane	EPA 524.2	C8H2502	1.0	ND	1	8/25/2008	8/25/2008	
1,2-Dichlorobenzene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1.4-Dichlorobenzene	EPA 524 2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1.1-Dichloroethane	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1.2-Dichloroethane	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1.1-Dichloroethene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
cis-1.2-Dichloroethene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
trans-1.2-Dichloroethene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
	EPA 524.2	C8H2502		ND	I	8/25/2008		
I.2-Dichloropropane	EPA 524.2 EPA 524.2		0.50				8/25/2008	
cis-1,3-Dichloropropene		C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
trans-1,3-Dichloropropene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1,3-Dichloropropene, Total	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Ethylbenzene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Methylene chloride	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Styrene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1,1,2,2-Tetrachloroethane	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Tetrachloroethene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Toluene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1.2,4-Trichlorobenzene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1.1.1-Trichloroethane	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
1,1,2-Trichlöroethane	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Trichloroethene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Trichlorofluoromethane (Freon 11)	EPA 524.2	C8H2502	5.0	ND	1	8/25/2008	8/25/2008	
Trichlorotrifluoroethane (Freon 113)	EPA 524.2	C8H2502	10	ND	1	8/25/2008	8/25/2008	
Vinyl chloride	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
m,p-Xylenes	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
o-Xylene	EPA 524.2	C8H2502	0.50	ND	1	8/25/2008	8/25/2008	
Xylenes, Total	EPA 524.2	C8H2502	1.0	ND	1	8/25/2008	8/25/2008	
Methyl-tert-butyl Ether (MTBE)	EPA 524.2	C8H2502	3.0	ND	1	8/25/2008	8/25/2008	
Trihalomethanes, Total	EPA 524.2	C8H2502	1.0	<4.0	1	8/25/2008	8/25/2008	
Surrogate: 4-Bromofluorobenzene (70-130%)				77 %				

Surrogate: 4-Bromofluorobenzene (70-130%) Surrogate: 1,2-Dichlorobenzene-d4 (70-130%)

90%

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: Title 22 Testing 11001 Etiwanda Avenue Title 22 Testing

11001 Etiwanda Avenue Title 22 Testing Sampled: 08/14/08 Fontana, CA 92337 Report Number: CRH0590 Received: 08/14/08

Attention: Mike Haslam

CDHS SRL 524 MODIFIED METHOD FOR 1,2,3-TRICHLOROPROPANE PT/GCMS

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0590-01 (Ryken-Well	-S-1 - Water)							
Reporting Units: ng/L								
1,2,3-Trichloropropane (123-TCP)	SRL 524M-123TCP	C8H1815	5.0	ND	1	8/18/2008	8/19/2008	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing

Sampled: 08/14/08 Report Number: CRH0590 Received: 08/14/08

Attention: Mike Haslam

11001 Etiwanda Avenue

Layne Christensen

Fontana, CA 92337

EDB AND DBCP IN WATER BY GC/ECD (EPA 504.1)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Oualifiers
		Daten	Limit	Kesun	ractor	Extracted	Analyzeu	Quantities
Sample ID: CRH0590-01 (Ryken-Well-S-1 - V	Vater)							
Reporting Units: ug/l								
1,2-Dibromoethane (EDB)	EPA 504.1	C8H1515	0.020	ND	0.993	8/15/2008	8/16/2008	
1.2-Dibromo-3-chloropropane	EPA 504.1	C8H1515	0.010	ND	0.993	8/15/2008	8/16/2008	
Surrogate: 4-Bromofluorobenzene (65-154%)				97%				



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Project ID: Title 22 Testing Layne Christensen

Title 22 Testing Sampled: 08/14/08

11001 Etiwanda Avenue Report Number: CRH0590 Fontana, CA 92337 Received: 08/14/08 Attention: Mike Haslam

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRII0590-01 (Ryken-Well-	-S-1 - Water)							
Reporting Units: ug/l								
Atrazine	EPA 525.2	C8H1511	0.50	ND	1	8/15/2008	8/15/2008	
Benzo(a)pyrene	EPA 525.2	C8H1511	0.10	ND	1	8/15/2008	8/15/2008	
Di(2-ethylhexyl)adipate	EPA 525.2	C8H1511	5.0	ND	1	8/15/2008	8/15/2008	
Di(2-ethylhexyl)phthalate	EPA 525.2	C8H1511	3.0	ND	1	8/15/2008	8/15/2008	
Hexachlorobenzene	EPA 525.2	C8H1511	0.50	ND	1	8/15/2008	8/15/2008	
Hexachlorocyclopentadiene	EPA 525.2	C8H1511	1.0	ND	1	8/15/2008	8/15/2008	
Molinate	EPA 525.2	C8H1511	2.0	ND	1	8/15/2008	8/15/2008	
Simazine	EPA 525.2	C8H1511	1.0	ND	1	8/15/2008	8/15/2008	
Thiobencarb	EPA 525.2	C8H1511	1.0	ND	1	8/15/2008	8/15/2008	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	(70-130%)			93%				
Surrogate: Triphenylphosphate (70-1309)	%)			95%				
Surrogate: Perylene-d12 (70-130%)				93 %				



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: Title 22 Testing

11001 Etiwanda Avenue Title 22 Testing Sampled: 08/14/08 Fontana, CA 92337 Report Number: CRH0590 Received: 08/14/08

Attention: Mike Haslam

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0590-01 (Ryken-Well-S-	-1 - Water)							
Reporting Units: ug/l								
Alachlor	EPA 505	C8H1824	1.0	ND	0.996	8/18/2008	8/19/2008	
Endrin	EPA 505	C8H1824	0.10	ND	0.996	8/18/2008	8/19/2008	
Heptachlor	EPA 505	C8H1824	0.010	ND	0.996	8/18/2008	8/19/2008	C, L
Heptachlor epoxide	EPA 505	C8H1824	0.010	ND	0.996	8/18/2008	8/19/2008	C, L
Lindane (gamma-BHC)	EPA 505	C8H1824	0.20	ND	0.996	8/18/2008	8/19/2008	
Methoxychlor	EPA 505	C8H1824	10	ND	0.996	8/18/2008	8/19/2008	
Chlordane	EPA 505	C8H1824	0.10	ND	0.996	8/18/2008	8/19/2008	
Toxaphene	EPA 505	C8H1824	1.0	ND	0.996	8/18/2008	8/19/2008	
Aroclor 1016	EPA 505	C8H1824	0.26	ND	0.996	8/18/2008	8/19/2008	
Aroclor 1221	EPA 505	C8H1824	0.19	ND	0.996	8/18/2008	8/19/2008	
Aroclor 1232	EPA 505	C8H1824	0.23	ND	0.996	8/18/2008	8/19/2008	
Aroclor 1242	EPA 505	C8H1824	0.26	ND	0.996	8/18/2008	8/19/2008	
Aroclor 1248	EPA 505	C8H1824	0.30	ND	0.996	8/18/2008	8/19/2008	
Aroclor 1254	EPA 505	C8H1824	0.33	ND	0.996	8/18/2008	8/19/2008	
Aroclor 1260	EPA 505	C8H1824	0.36	ND	0.996	8/18/2008	8/19/2008	
PCBs as Decachlorobiphenyl (DCB)	EPA 505	C8H1824	0.50	ND	0.996	8/18/2008	8/19/2008	



Layne Christensen

11001 Etiwanda Avenue

1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing Sampled: 08/14/08
Report Number: CRH0590 Received: 08/14/08

Fontana, CA 92337 Report Number: CRH05 Attention: Mike Haslam

CHLORINATED ACIDS (EPA 515.4)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0590-01 (Ryken-W	Vell-S-1 - Water)							
Reporting Units: ug/l								
Bentazon	EPA 515.4	C8H1808	2.0	ND	1	8/18/2008	8/19/2008	
2,4-D	EPA 515.4	C8H1808	10	ND	1	8/18/2008	8/19/2008	
Dalapon	EPA 515.4	C8H1808	10	ND	1	8/18/2008	8/19/2008	
Daethal acid metabolites	EPA 515.4	C8H1808	1.0	ND	1	8/18/2008	8/19/2008	
Dicamba	EPA 515.4	C8H1808	1.5	ND	1	8/18/2008	8/19/2008	
Dinoseb	EPA 515.4	C8H1808	2.0	ND	1	8/18/2008	8/19/2008	
Pentachlorophenol	EPA 515.4	C8H1808	0.20	ND	1	8/18/2008	8/19/2008	
Picloram	EPA 515.4	C8H1808	1.0	ND	1	8/18/2008	8/19/2008	
2,4,5-TP (Silvex)	EPA 515.4	C8H1808	1.0	ND	1	8/18/2008	8/19/2008	
Surrogate: 2,4-Dichlorophenylacetic	acid (70-130%)			108%				



1014 E Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337

Attention: Mike Haslam

Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0590-01 (Ryken-We	II-S-1 - Water)							
Reporting Units: ug/l								
Aldicarb Sulfoxide	EPA 531.1	C8H2105	3.0	ND	1	8/21/2008	8/21/2008	
Aldicarb Sulfone	EPA 531.1	C8H2105	2.0	ND	1	8/21/2008	8/21/2008	
Oxamyl	EPA 531.1	C8H2105	20	ND	1	8/21/2008	8/21/2008	
Methomyl	EPA 531.1	C8H2105	2.0	ND	1	8/21/2008	8/21/2008	
3-Hydroxycarbofuran	EPA 531.1	C8H2105	3.0	ND	1	8/21/2008	8/21/2008	
Aldicarb	EPA 531 1	C8H2105	3.0	ND	1	8/21/2008	8/21/2008	
Carbofuran	EPA 531.1	C8H2105	5.0	ND	1	8/21/2008	8/21/2008	
Carbaryl	EPA 531.1	C8H2105	5.0	ND	1	8/21/2008	8/21/2008	



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

ENDOTHALL (EPA 548.1)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-W	ell-S-1 - Water)							
Reporting Units: ug/l								
Endothall	EPA 548.1	C8H1807	45	ND	1	8/18/2008	8/19/2008	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue

Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

GLYPHOSATE (EPA 547)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-We	ell-S-1 - Water)							
Reporting Units: ug/l								
Glyphosate	EPA 547	C8H1602	25	ND	1	8/16/2008	8/16/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667. Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Attention: Mike Haslam

Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

DIQUAT/PARAQUAT (EPA 549.2)

lyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
le ID: CRH0590-01 (Ryken-Well-S-1 -	Water)							
Reporting Units: ug/l								
t	EPA 549 2	C8H1601	4.0	ND	1	8/16/2008	8/16/2008	
uat	EPA 549 2	C8H1601	20	ND	1	8/16/2008	8/16/2008	
		512.007.500			1			



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue

Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-Well-	S-1 - Water)							pH
Reporting Units: Color Units								
Color	SM2120B	C8H1513	(1)	ND	1	8/15/2008	8/15/2008	
Sample ID: CRH0590-01 (Ryken-Well- Reporting Units: NTU	S-1 - Water)							
Turbidity	EPA 180.1	C8H1517	0.10	0.19	1	8/15/2008	8/15/2008	
Sample ID: CRH0590-01 (Ryken-Well- Reporting Units: T.O.N.	S-I - Water)							
Odor	SM2150B	C8H1514	1.0	ND	4	8/15/2008	8/15/2008	
Odor	31VIZ 13UD	C6H1314	1.0	IND	.1	6/13/2008	6/15/2008	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

FIELD TESTS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-Wel Reporting Units: °C	l-S-1 - Water)							
Temperature	Field Test	C8H1522	1.0	24	-1	8/14/2008	8/15/2008	FT
Sample ID: CRH0590-01 (Ryken-Well Reporting Units: pH Units	I-S-1 - Water)							
pH	Field Test	C8H1522	NA	5.8	-1	8/14/2008	8/15/2008	FT



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

Attention: Mike Haslam

METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-We	II-S-1 - Water)							
Reporting Units: mg/l								
Hardness (as CaCO3)	SM2340B	[CALC]	0.33	320	I	8/15/2008	8/20/2008	
Calcium	EPA 200.7	8H15092	0.10	98	1	8/15/2008	8/20/2008	
Iron	EPA 200.7	8H15092	0.040	ND	1	8/15/2008	8/19/2008	
Magnesium	EPA 200.7	8H15092	0.020	17	1	8/15/2008	8/19/2008	
Potassium	EPA 200.7	8H15092	0.50	6.5	1	8/15/2008	8/19/2008	
Sodium	EPA 200.7	8H15092	0.50	400	1	8/15/2008	8/19/2008	
Mercury	EPA 245.1	8H18089	0.00020	ND	1	8/18/2008	8/18/2008	
Sample ID: CRH0590-01 (Ryken-We	II-S-1 - Water)							
Reporting Units: pCi/L								
Uranium pCi/L (CA)	EPA 200.8	8H15098	1.0	8.0	1	8/15/2008	8/15/2008	
Sample ID: CRH0590-01 (Ryken-We	II-S-1 - Water)							
Reporting Units: ug/l								
Aluminum	EPA 200.8	8H15098	10	ND	1	8/15/2008	8/15/2008	
Antimony	EPA 200.8	8H15098	2.0	ND	1	8/15/2008	8/15/2008	
Arsenic	EPA 200.8	8H15098	1.0	9.1	1	8/15/2008	8/19/2008	
Barium	EPA 200.8	8H15098	1.0	28	1	8/15/2008	8/15/2008	
Beryllium	EPA 200.8	8H15098	0.50	ND	1	8/15/2008	8/15/2008	C
Cadmium	EPA 200.8	8H15098	1.0	ND	1	8/15/2008	8/15/2008	
Chromium	EPA 200.8	8H15098	2.0	3.4	1	8/15/2008	8/15/2008	
Copper	EPA 200.8	8H15098	2.0	7.1	1	8/15/2008	8/15/2008	
Lead	EPA 200 8	8H15098	1.0	ND	1	8/15/2008	8/19/2008	
Manganese	EPA 200.8	8H15098	1.0	1.3	1	8/15/2008	8/15/2008	
Nickel	EPA 200.8	81115098	2.0	ND	1	8/15/2008	8/15/2008	
Selenium	EPA 200.8	81115098	2.0	5.3	1	8/15/2008	8/15/2008	
Silver	EPA 200.8	8H15098	1.0	ND	1	8/15/2008	8/15/2008	
Thallium	EPA 200 8	8H15098	1.0	ND	1	8/15/2008	8/15/2008	C
Zinc	EPA 200.8	8H15098	20	ND	1	8/15/2008	8/15/2008	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0590

Attention: Mike Haslam

Sampled: 08/14/08 Received: 08/14/08

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-Well-	-S-1 - Water)							
Reporting Units: mg/l								
Alkalinity as CaCO3	SM2320B	8H15056	2.0	140	1	8/15/2008	8/15/2008	
Alkalinity as CaCO3	SM2320B	8H15056	2.0	140	1	8/15/2008	8/15/2008	
Bicarbonate Alkalinity as CaCO3	SM2320B	8H15056	2.0	140	1	8/15/2008	8/15/2008	
Carbonate Alkalinity as CaCO3	SM2320B	8H15056	2.0	ND	1	8/15/2008	8/15/2008	
Hydroxide Alkalinity as CaCO3	SM2320B	8H15056	2.0	ND	1	8/15/2008	8/15/2008	
Chloride	EPA 300.0	8H15039	25	690	50	8/15/2008	8/15/2008	
Total Cyanide	SM4500-CN-C,E	8H18096	0.025	ND	Í	8/18/2008	8/18/2008	
Fluoride	SM 4500-F-C	8H19041	0.10	0.64	1	8/19/2008	8/19/2008	
Nitrate-N	EPA 300.0	8H14050	0.15	3.0	1	8/14/2008	8/15/2008	
Nitrate-NO3	EPA 300.0	8H14050	0.50	13	1	8/14/2008	8/15/2008	
Nitrite-N	EPA 300.0	8H14050	3.0	ND	20	8/14/2008	8/15/2008	RL1
Nitrate/Nitrite-N	EPA 300.0	8H14050	0.26	3.0	1	8/14/2008	8/15/2008	
Sulfate	EPA 300.0	8H14050	10	330	20	8/14/2008	8/15/2008	
Surfactants (MBAS)	SM5540-C	8H14114	0.10	ND	1	8/14/2008	8/14/2008	
Total Dissolved Solids	SM2540C	8H18035	10	1700	-1	8/18/2008	8/18/2008	
Sample ID: CRH0590-01 (Ryken-Well-	S-1 - Water)							
Reporting Units: pH Units								
рН	EPA 150 1	8H15063	0.100	7.86	-1	8/15/2008	8/15/2008	HFT
Sample ID: CRH0590-01 (Ryken-Well-	S-1 - Water)							
Reporting Units: ug/l								
Perchlorate	EPA 314.0	8H22061	4.0	ND	1	8/22/2008	8/22/2008	
Sample ID: CRH0590-01 (Ryken-Well-	S-1 - Water)							
Reporting Units: umhos/cm @ 25C								
Specific Conductance	SM2510B	8H18034	1.0	2600	1	8/18/2008	8/18/2008	



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Attention: Mike Haslam

Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

AGGRESSIVE INDEX

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-Well	-S-1 - Water)							
Reporting Units: SI Units								
Aggressive Index	Calc	8H25088	0.010	12	1	8/25/2008	8/25/2008	



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax. (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

EPA-5 1613B-Tetras

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-Well-S-	1 - Water)							
Reporting Units: pg/L								
2,3,7,8-TCDD	EPA-5 1613B-Tetras	8235233	5.0	ND	1	8/21/2008	8/25/2008	
Surrogate: 13C-2,3,7,8-TCDD (25-141%)				61 %				



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

EPA 900.0 MOD

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0590-01 (Ryken-W	ell-S-1 - Water)							
Reporting Units: pCi/L								
Gross Alpha	EPA 900.0 MOD	8234148	3	14.4	1	8/21/2008	8/25/2008	



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

EPA 903.0 MOD

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-W	'ell-S-1 - Water)							
Reporting Units: pCi/L								
Radium (total)	EPA 903 0 MOD	8233375	1	0.24	1	8/21/2008	8/25/2008	J.



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

EPA 904 MOD

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0590-01 (Ryken-We	ell-S-1 - Water)							
Reporting Units: pCi/L								
Radium 228	EPA 904 MOD	8233373	1	0.64	1	8/21/2008	8/27/2008	J



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen

Project ID: Title 22 Testing

Title 22 Testing

Sampled: 08/14/08

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam

Report Number: CRH0590

Received: 08/14/08

EPA 906.0 MOD

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-W	ell-S-1 - Water)							
Reporting Units: pCi/L.								
Tritium	EPA 906.0 MOD	8234199	500	140	1	8/21/2008	8/22/2008	U



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337

Attention: Mike Haslam

Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

EPA 100.2

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0590-01 (Ryken-We	ell-S-1 - Water)							
Reporting Units: MFL								
Asbestos by TEM	EPA 100.2	NA	0.2	ND	1	8/15/2008	8/19/2008	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen Project ID: Title 22 Testing 11001 Etiwanda Avenue Title 22 Testing

Title 22 Testing Sampled: 08/14/08
Report Number: CRH0590 Received: 08/14/08

Fontana, CA 92337 Report Number: CRH0590 Received:
Attention: Mike Haslam

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Ryken-Well-S-1 (C	CRH0590-01) - Water				
EPA 150.1	0	08/14/2008 10:30	08/14/2008 13:10	08/15/2008 09:00	08/15/2008 09:00
EPA 180.1	2	08/14/2008 10:30	08/14/2008 13:10	08/15/2008 11:00	08/15/2008 11:00
EPA 300.0	2	08/14/2008 10:30	08/14/2008 13:10	08/14/2008 22:15	08/15/2008 00:15
Nitrite-N				08/14/2008 22:15	08/15/2008 00:29
SM2120B	2	08/14/2008 10:30	08/14/2008 13:10	08/15/2008 10:30	08/15/2008 10:30
SM2150B	1	08/14/2008 10:30	08/14/2008 13:10	08/15/2008 10:00	08/15/2008 10:00
SM5540-C	2	08/14/2008 10:30	08/14/2008 13:10	08/14/2008 20:52	08/14/2008 21:59



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Ambida	Daniela	Reporting Limit	** 1	Spike	Source	WARE	%REC	DDD	RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2502 Extracted: 08/25/08										
Blank Analyzed: 08/25/2008 (C8H2502	-BLK1)									
Benzene	ND	0.50	ug/l							
Bromodichloromethane	ND	1.0	ug/l							
Bromoform	ND	1.0	ug/I							
Carbon tetrachloride	ND	0.50	ug/l							
Chlorobenzene	ND	0.50	ug/l							
Chloroform	ND	1.0	ug/l							
Dibromochloromethane	ND	1.0	ug/l							
1.2-Dichlorobenzene	ND	0.50	ug/l							
1,4-Dichlorobenzene	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1.1-Dichloroethene	ND	0.50	ug/l							
cis-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/l							
1,2-Dichloropropane	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/l							
1,3-Dichloropropene, Total	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Methylene chloride	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							
1.1.2.2-Tetrachloroethane	ND	0.50	tig/l							
Tetrachloroethene	ND	0.50	ug/l							
Toluene	ND	0.50	ug/l							
1,2,4-Trichlorobenzene	ND	0.50	ug/l							
I, I, I-Trichloroethane	ND	0.50	ug/I							
1,1,2-Trichloroethane	ND	0.50	ug/l							
Frichloroethene	ND	0.50	ug/l							
Frichlorofluoromethane (Freon 11)	ND	5.0	ug/l							
Frichlorotrifluoroethane (Freon 113)	ND	10	ug/l							
Vinyl chloride	ND	0.50	ug/l							
n,p-Xylenes	ND	0.50	ug/l							
o-Xylene	ND	0.50	ug/l							
Kylenes, Total	ND	1.0	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	3.0	ug/l							
Frihalomethanes, Total	<4.0	1.0	ug/L							

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	DDD	RPD	Data
Batch: C8H2502 Extracted: 08/25/08	Kesuit	Limit	Cints	Level	Result	70KEC	Limits	RPD	Limit	Qualifiers
Daten. Con 2502 Datracted. 50725/00										
Blank Analyzed: 08/25/2008 (C8H2502-I	BLK1)									
Surrogate: 4-Bromofluorobenzene	3.63		ug/l	5.00		7.3	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	3.77		ug/l	5.00		75	70-130			
LCS Analyzed: 08/25/2008 (C8H2502-BS	81)									
Benzene	6.26	0.50	ug/l	5.00		125	70-130			
Bromodichloromethane	5.29	1.0	ug/l	5.00		106	70-130			
Bromoform	4.28	1.0	ug/l	5.00		86	70-130			
Carbon tetrachloride	5.53	0.50	ug/l	5.00		111	70-130			
Chlorobenzene	5.85	0.50	ug/I	5.00		117	70-130			
Chloroform	5.32	1.0	ug/I	5.00		106	70-130			
Dibromochloromethane	4.85	1.0	ug/l	5.00		97	70-130			
1,2-Dichlorobenzene	4.91	0.50	ug/l	5.00		98	70-130			
1,4-Dichlorobenzene	5.30	0.50	ug/l	5.00		106	70-130			
1,1-Dichloroethane	5.68	0.50	ug/I	5.00		114	70-130			
1,2-Dichloroethane	5.14	.0.50	ug/I	5.00		103	70-130			
1,1-Dichloroethene	5 08	0.50	ug/I	5.00		102	70-130			
cis-1,2-Dichloroethene	5.75	0.50	ug/l	5.00		115	70-130			
trans-1,2-Dichloroethene	5.44	0.50	ug/I	5.00		109	70-130			
1,2-Dichloropropane	5.81	0.50	ug/I	5.00		116	70-130			
cis-1,3-Dichloropropene	5.18	0.50	ug/l	5.00		104	70-130			
trans-1_3-Dichloropropene	4.89	0.50	ug/l	5.00		98	70-130			
1.3-Dichloropropene, Total	10.1	0.50	ug/I	10.0		101	70-130			
Ethylbenzene	5.43	0.50	ug/l	5.00		109	70-130			
Methylene chloride	5.00	0.50	ug/l	5.00		100	70-130			
Styrene	4.74	0.50	ug/l	5.00		95	70-130			
1.1.2.2-Tetrachloroethane	4.96	0.50	ug/l	5.00		99	70-130			
Tetrachloroethene	5.25	0.50	ug/l	5.00		105	70-130			
Toluene	6.23	0.50	ug/I	5.00		125	70-130			
1,2,4-Trichlorobenzene	4.62	0.50	ug/l	5.00		92	70-130			
1,1,1-Trichloroethane	5.90	0.50	ug/l	5.00		118	70-130			
1,1,2-Trichloroethane	5.16	0.50	ug/l	5.00		103	70-130			
Trichloroethene	5.65	0.50	ug/l	5.00		1.13	70-130			
Trichlorofluoromethane (Freon 11)	6.24	5.0	ug/l	5.00		125	70-130			
Trichlorotrifluoroethane (Freon 113)	6.18	10	ug/l	5.00		124	70-130			
Vinyl chloride	5.47	0.50	ug/l	5.00		109	70-130			
m,p-Xylenes	10.9	0.50	ug/l	10.0		109	70-130			

TestAmerica Ontario



1014 E Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2502 Extracted: 08/25/08										
LCS Analyzed: 08/25/2008 (C8H2502-	-BS1)									
o-Xylene	5.64	0.50	ug/l	5.00		113	70-130			
Xylenes, Total	16.6	1.0	ug/l	15.0		110	70-130			
Methyl-tert-butyl Ether (MTBE)	9.77	3.0	ug/l	10.0		98	70-130			
Trihalomethanes, Total	19.7	1.0	ug/l	20.0		99	70-130			
Surrogate: 4-Bromofluorobenzene	4.50		ug/l	5.00		90	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	4.36		ug/l	5.00		87	70-130			
Matrix Spike Analyzed: 08/25/2008 (C	(8H2502-MS1)				Source: C	RH0652-	03			
Benzene	5.56	0.50	ug/l	5.00	ND	111	70-125			
Bromodichloromethane	21.6	1.0	ug/l	5.00	19.2	49	40-150			
Bromoform	14.5	1.0	ug/1	5.00	11.4	63	45-120			
Carbon tetrachloride	4.88	0.50	ug/l	5.00	ND	98	60-140			
Chlorobenzene	5.19	0.50	ug/I	5.00	ND	104	60-125			
Chloroform	11.9	1.0	ug/l	5.00	8.30	73	55-130			
Dibromochloromethane	32.6	1.0	ug/l	5.00	30.9	33	50-130			MHA
1.2-Dichlorobenzene	4,36	0.50	ug/l	5.00	ND	87	60-130			
1,4-Dichlorobenzene	4.70	0.50	ug/I	5.00	ND	94	60-135			
1,1-Dichloroethane	4.98	0.50	ug/1	5.00	ND	100	65-125			
1,2-Dichloroethane	4,32	0.50	ug/l	5.00	ND	86	50-140			
1,1-Dichloroethene	4.53	0.50	ug/l	5.00	ND	91	65-125			
cis-1,2-Dichloroethene	4.95	0.50	ug/I	5.00	ND	99	70-115			
trans-1,2-Dichloroethene	4.72	0.50	ug/I	5.00	ND	94	70-115			
1.2-Dichloropropane	5.09	0.50	ug/l	5.00	ND	102	65-125			
cis-1,3-Dichloropropene	3.82	0.50	ug/l	5.00	ND	76	45-130			
trans-1,3-Dichloropropene	4.00	0.50	ug/l	5.00	ND	80	55-110			
1,3-Dichloropropene, Total	7.82	0.50	ug/l	10.0	ND	78	30-140			
Ethylbenzene	4.96	0.50	ug/l	5,00	ND	99	60-120			
Methylene chloride	4.22	0.50	ug/l	5,00	ND	84	60-110			
Styrene	4.37	0.50	ug/l	5.00	ND	87	25-140			
1,1,2,2-Tetrachloroethane	4.27	0.50	ug/l	5.00	ND	85	50-140			
Tetrachloroethene	7.37	0.50	ug/l	5.00	ND	147	55-135			MI
Toluene	5.55	0.50	ug/l	5.00	ND	111	65-125			
1,2,4-Trichlorobenzene	4.30	0.50	ug/I	5.00	ND	86	45-140			
1,1,1-Trichloroethane	5.00	0.50	ug/l	5.00	ND	100	60-135			
1.1.2-Trichloroethane										
1.1.2-111Chioroctilane	4.46	0.50	ug/l	5.00	ND	89	60-130			

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2502 Extracted: 08/25/08										
Matrix Spike Analyzed: 08/25/2008 (C	8H2502-MS1				Source: C	RH0652-	03			
Trichlorofluoromethane (Freon 11)	5.22	5.0	ug/l	5.00	ND	104	65-140			
Trichlorotrifluoroethane (Freon 113)	5.26	10	ug/I	5.00	ND	105	60-135			
Vinyl chloride	4.87	0.50	ug/l	5.00	ND	97	60-130			
m.p-Xylenes	10.0	0.50	ug/l	10.0	ND	100	60-125			
o-Xylene	5.18	0.50	ug/l	5.00	ND	104	75-115			
Xylenes, Total	15.2	1.0	ug/l	15.0	ND	101	60-135			
Methyl-tert-butyl Ether (MTBE)	8.21	3.0	ug/l	10.0	0.240	80	50-130			
Trihalomethanes, Total	80.6	1.0	ug/l	20.0	69.8	54	55-125			M2
Surrogate: 4-Bromofluorobenzene	4.61		ug/l	5.00		92	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	4.32		ug/I	5.00		86	70-130			
Matrix Spike Dup Analyzed: 08/25/200	08 (C8H2502-	MSD1)			Source: C	RH0652-	03			
Benzene	5.92	0.50	ug/l	5.00	ND	118	70-125	6	25	
Bromodichloromethane	21.5	1.0	ug/l	5.00	19.2	47	40-150	1	20	
Bromoform	15.3	1.0	ug/l	5.00	11.4	79	45-120	5	20	
Carbon tetrachloride	5.00	0.50	ug/l	5.00	ND	100	60-140	2	30	
Chlorobenzene	5.72	0.50	ug/l	5.00	ND	114	60-125	10	20	
Chloroform	12.0	1.0	ug/l	5.00	8.30	73	55-130	0	15	
Dibromochloromethane	32.9	1.0	ug/l	5.00	30.9	40	50-130	1	15	MHA
1.2-Dichlorobenzene	4.85	0.50	ug/l	5.00	ND	97	60-130	11.	20	
1,4-Dichlorobenzene	5.20	0.50	ug/l	5.00	ND	104	60-135	10	20	
1.1-Dichloroethane	5.33	0.50	ug/l	5.00	ND	107	65-125	7	20	
1,2-Dichloroethane	4.57	0.50	ug/l	5.00	ND	-91	50-140	6	30	
1.1-Dichloroethene	4.91	0.50	ug/I	5.00	ND	98	65-125	8	20	
cis-1,2-Dichloroethene	5.38	0.50	ug/l	5.00	ND	108	70-115	8	15	
trans-1,2-Dichloroethene	5.17	0.50	ug/l	5.00	ND	103	70-115	9	20	
1,2-Dichloropropane	5.56	0.50	ug/l	5.00	ND	111	65-125	9	20	
eis-1.3-Dichloropropene	4.07	0.50	ug/I	5.00	ND	81	45-130	6	15	
trans-1,3-Dichloropropene	4.38	0.50	ug/l	5.00	ND	88	55-110	9	20	
1,3-Dichloropropene, Total	8.45	0.50	ug/l	10.0	ND	84	30-140	8	20	
Ethylbenzene	5.26	0.50	ug/I	5.00	ND	105	60-120	6	20	
Methylene chloride	4.70	0.50	ug/l	5.00	ND	94	60-110	11	15	
Styrene	4.78	0.50	ug/I	5.00	ND	96	25-140	9	25	
1,1,2,2-Tetrachloroethane	4.61	0.50	ug/l	5.00	ND	92	50-140	8	30	
Tetrachloroethene	8.36	0.50	ug/l	5.00	ND	167	55-135	13	20	MI
Toluene	5.88	0.50	ug/l	5.00	ND	118	65-125	6	20	-366

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project 1D: Title 22 Testing 11001 Etiwanda Avenue Title 22 Testing

Fontana, CA 92337 Report Number: CRH0590 Attention: Mike Haslam Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2502 Extracted: 08/25/08										
Matrix Spike Dup Analyzed: 08/25/20	08 (C8H2502-	MSD1)			Source: (RH0652-	03			
1.2,4-Trichlorobenzene	4.98	0.50	ug/l	5.00	ND	100	45-140	15	20	
1,1,1-Trichloroethane	5.16	0.50	ug/l	5.00	ND	103	60-135	3	35	
1,1,2-Trichloroethane	4.94	0.50	ug/l	5.00	ND	99	60-130	10	25	
Trichloroethene	5.47	0.50	ug/l	5.00	ND	109	75-115	6	20	
Trichlorofluoromethane (Freon 11)	5.27	5.0	ug/l	5.00	ND	105	65-140	1	25	
Trichlorotrifluoroethane (Freon 113)	5.40	10	ug/I	5.00	ND	108	60-135	3	25	
Vinyl chloride	5.14	0.50	ug/I	5.00	ND	103	60-130	5	20	
m,p-Xylenes	10.7	0.50	ug/I	10.0	ND	107	60-125	7	20	
o-Xylene	5.53	0.50	ug/l	5.00	ND	111	75-115	7	20	
Xylenes, Total	16.2	1.0	ug/l	15.0	ND	108	60-135	7	20	
Methyl-tert-butyl Ether (MTBE)	9.49	3,0	ug/l	10.0	0.240	92	50-130	14	25	
Trihalomethanes, Total	81.7	1.0	ug/l	20.0	69.8	60	55-125	1	15	
Surrogate: 4-Bromofluorobenzene	4.66		ug/l	5.00		93	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	4.51		ug/l	5.00		90	70-130			



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

CDHS SRL 524 MODIFIED METHOD FOR 1,2,3-TRICHLOROPROPANE PT/GCMS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H1815 Extracted: 08/18/08										
Blank Analyzed: 08/19/2008 (C8H181:	5-BLK1)									
1,2,3-Trichloropropane (123-TCP)	ND	5.0	ng/L							
LCS Analyzed: 08/19/2008 (C8H1815-	BS1)									
1,2,3-Trichloropropane (123-TCP)	5.11	5.0	ng/L	5.00		102	80-120			
Matrix Spike Analyzed: 08/19/2008 (C	8H1815-MS1)			Source: C	CRH0590-	01			
1,2,3-Trichloropropane (123-TCP)	45.1	5.0	ng/L	50.0	ND	90	45-140			
Matrix Spike Dup Analyzed: 08/19/200	08 (C8H1815-	MSD1)			Source: C	CRH0590-	01			
1,2,3-Trichloropropane (123-TCP)	45.4	5.0	ng/L	50.0	ND	91	45-140	1	27	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

EDB AND DBCP IN WATER BY GC/ECD (EPA 504.1)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
	Result	Link	Cints	Level	Result	POREC	Limits	KID	Limit	Quantiers
Batch: C8H1515 Extracted: 08/15/08										
Blank Analyzed: 08/15/2008 (C8H1515	-BLK1)									
1,2-Dibromoethane (EDB)	ND	0.020	ug/l							
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l							
Surrogate: 4-Bromofluorobenzene	9.74		ug/l	5.01		194	65-154			Z2.
LCS Analyzed: 08/15/2008 (C8H1515-I	BS1)									
1,2-Dibromoethane (EDB)	0.260	0.020	ug/l	0.250		104	70-130			
1.2-Dibromo-3-chloropropane	0.252	0.010	ug/1	0.250		101	70-130			
Surrogate: 4-Bromofluorobenzene	5.06		ug/I	4.99		101	65-154			
LCS Analyzed: 08/16/2008 (C8H1515-H	3S2)									
1,2-Dibromoethane (EDB)	0.284	0.020	ug/l	0.250		114	70-130			
1,2-Dibromo-3-chloropropane	0.268	0.010	ug/l	0.250		107	70-130			
Surrogate: 4-Bromofluorobenzene	4.70		ug/l	5.01		94	65-154			
LCS Dup Analyzed: 08/16/2008 (C8H1:	515-BSD1)									
1.2-Dibromoethane (EDB)	0.103	0.020	ug/I	0.100		103	70-130	1	30	
1,2-Dibromo-3-chloropropane	0.105	0.010	ug/l	0.100		105	70-130	4	21	
Surrogate: 4-Bromofluorobenzene	4.47		ug 1	5.00		89	65-154			
Matrix Spike Analyzed: 08/15/2008 (C8	H1515-MS1)				Source: C	RH0344-0	01			
1.2-Dibromoethane (EDB)	0.259	0.020	ug/I	().246	ND	105	65-135			
1,2-Dibromo-3-chloropropane	0.246	0.010	ug/I	0.246	ND	100	65-135			
Surrogate: 4-Bromofluorobenzene	5.43		ug 1	4.92		110	65-154			



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
	Result	Limit	Units	Level	Result	70KEC	Limits	RPD	Limit	Quantiers
Batch: C8H1511 Extracted: 08/15/08										
Blank Analyzed: 08/15/2008 (C8H151)	I-BLK1)									
Atrazine	ND	0.50	ug/l							
Benzo(a)pyrene	ND	0.10	ug/l							
Di(2-ethylhexyl)adipate	ND	5.0	ug/l							
Di(2-ethylhexyl)phthalate	ND	3.0	ug/l							
Hexachlorobenzene	ND	0.50	ug/l							
Hexachlorocyclopentadiene	ND	1.0	ug/l							
Molinate	ND	2.0	ug/l							
Simazine	ND	1.0	ug/l							
Thiobencarb	ND	1.0	ug/l							
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.17		ug/l	5.00		103	70-130			
Surrogate: Triphenylphosphate	4.83		ug/l	5.00		97	70-130			
Surrogate: Perylene-d12	4.66		ug/I	5.00		93	70-130			
LCS Analyzed: 08/15/2008 (C8H1511-	BS1)									
Atrazine	5.51	0.50	ug/l	5.00		110	70-130			
Benzo(a)pyrene	6.12	0.10	ug/l	5.00		122	70-130			
Di(2-ethylhexyl)adipate	10.1	5.0	ug/l	10.0.		101	70-130			
Di(2-ethylhexyl)phthalate	10.7	3.0	ug/l	10.0		107	70-130			
Hexachlorobenzene	5.35	0.50	ug/l	5.00		107	70-130			
Hexachlorocyclopentadiene	10.1	1.0	ug/l	10.0		101	70-130			
Molinate	5.01	2.0	ug/I	5.00		100	70-130			
Simazine	3.94	1.0	ug/l	5.00		79	70-130			
Thiobencarb	5.29	1.0	ug/I	5.00		106	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.92		ug/l	5.00		98	70-130			
Surrogate: Triphenylphosphate	4.69		ug/l	5.00		94	70-130			
Surrogate: Perylene-d12	5.02		ug.T	5.00		100	70-130			
LCS Dup Analyzed: 08/15/2008 (C8H1	511-BSD1)									
Atrazine	5.39	0.50	ug/l	5.00		108	70-130	2	10	
Benzo(a)pyrene	6.42	0.10	ug/l	5.00		128	70-130	5	10	
Di(2-ethylhexyl)adipate	10.4	5.0	ug/l	10.0		104	70-130	3	10	
Di(2-ethylhexyl)phthalate	10.8	3.0	ug/l	10.0		108	70-130	0	10	
Hexachlorobenzene	5.60	0.50	ug/l	5,00		112	70-130	4	10	
Hexachlorocyclopentadiene	10.6	1.0	ug/l	10.0		106	70-130	5	15	
Molinate	5.32	2.0	ug/l	5.00		106	70-130	6	10	
Simazine	3.52	1.0	ug/l	5.00		70	70-130	11	10	R-7
Thiobencarb	5.27	1.0	ug/l	5.00		105	70-130	0	5	
						100	100			

TestAmerica Ontario



1014 E. Cooley Dr., Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H1511 Extracted: 08/15/08										
LCS Dup Analyzed: 08/15/2008 (C8H1	511-BSD1)									
Surrogate: 1.3-Dimethyl-2-nitrobenzene	5.29		ug/l	5.00		106	70-130			
Surrogate: Triphenylphosphate	4.67		ug/l	5.00		93	70-130			
Surrogate: Perylene-d12	5.22		ug/l	5.00		104	70-130			
Matrix Spike Analyzed: 08/15/2008 (Co	8H1511-MS1)			Source: C	RH0497-	01			
Atrazine	5.35	0.50	ug/l	5.00	ND	107	70-130			
Benzo(a)pyrene	6.47	0.10	ug/l	5.00	ND	129	70-130			
Di(2-ethylhexyl)adipate	9.94	5.0	ug/l	10.0	ND	99	70-130			
Di(2-ethylhexyl)phthalate	11.0	3.0	ug/l	10.0	1.11	99	70-130			
Hexachlorobenzene	5.30	0.50	ug/I	5.00	ND	106	70-130			
Hexachlorocyclopentadiene	10.6	1.0	ug/l	10.0	ND	106	70-130			
Molinate	5.13	2.0	ug/I	5.00	ND	103	70-130			
Simazine	4.47	1.0	ug/l	5.00	ND	89	70-130			
Thiobencarb	5.31	1.0	ug/l	5.00	ND	106	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.56		ug/I	5.00		91	70-130			
Surrogate: Triphenylphosphate	4.80		ug/l	5.00		96	70-130			
Surrogate: Perylene-d12	5.38		ug/l	5.00		108	70-130			



1014 E. Cooley Dr., Ste A, Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H1824 Extracted: 08/18/0	8									
Blank Analyzed: 08/18/2008 (C8H18	24-BLK1)									
Alachlor	ND	1.0	ug/l							
Endrin	ND	0.10	ug/I							
Heptachlor	ND	0.010	ug/l							C
Heptachlor epoxide	ND	0.010	ug/l							C
Lindane (gamma-BHC)	ND	0.20	ug/l							
Methoxychlor	ND	10	ug/l							
Chlordane	ND	0.10	ug/l							
Toxaphene	ND	1.0	ug/l							
Aroclor 1016	ND	0.26	ug/l							
Aroclor 1221	ND	0.19	ug/l							
Aroclor 1232	ND	0.23	ug/l							
Aroclor 1242	ND	0.26	ug/I							
Aroclor 1248	ND	0.30	ug/l							
Aroclor 1254	ND	0.33	ug/I							
Aroclor 1260	ND	0.36	ug/I							
PCBs as Decachlorobiphenyl (DCB)	ND	0.50	ug/I							
LCS Analyzed: 08/19/2008 (C8H182-	4-BS1)									
Alachlor	0.914	1.0	ug/I	0.998		92	45-145			
Endrin	0.0698	0.10	ug/I	0.0998		70	40-155			
Heptachlor	0.123	0.010	ug/I	0.0998		123	65-115			C. L.
Heptachlor epoxide	0.120	0.010	ug/l	0.0998		121	65-115			C. L
Lindane (gamma-BHC)	0.108	0.20	ug/l	0.0998		108	65-120			
Methoxychlor	0.373	10	ug/l	0.499		75	50-135			
LCS Analyzed: 08/19/2008 (C8H182-	1-BS2)									
Aroclor 1016	5.19	0.26	ug/I	4.99		104	70-130			

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H1824 Extracted: 08	3/18/08									
LCS Dup Analyzed: 08/19/2008	3 (C8H1824-BSD1)									
Alachlor	0.556	1.0	ug/l	0.599		93	45-145	Ī	40	
Endrin	0.0385	0.10	ug/I	0.0599		64	40-155	8	35	
Heptachlor	0.0753	0.010	ug/I	0.0599		126	65-115	2	45	C.L
Heptachlor epoxide	0.0771	0.010	ug/l	0.0599		129	65-115	7	20	C. L
Lindane (gamma-BHC)	0.0696	0.20	ug/l	0.0599		116	65-120	7	20	
Methoxychlor	0.183	10	ug/l	0.299		61	50-135	20	40	
Matrix Spike Analyzed: 08/19/2	2008 (C8H1824-MS1)				Source: C	RH0376-	01			
Alachlor	0.893	1.0	ug/l	0.975	ND	92	65-135			
Endrin	0.0727	0.10	ug/l	0.0975	ND	74	65-135			
Heptachlor	0.129	0.010	ug/l	0.0975	ND	132	65-135			C
Heptachlor epoxide	0.127	0.010	ug/l	0.0975	ND	130	65-135			C
Lindane (gamma-BHC)	0.113	0.20	ug/l	0.0975	ND	116	65-135			
Methoxychlor	0.379	10	ug/l	0.488	ND	78	65-135			



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

CHLORINATED ACIDS (EPA 515.4)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H1808 Extracted: 08/18/08										
Blank Analyzed: 08/19/2008 (C8H1808	-BLK1)									
Bentazon	ND	2.0	ug/l							
2,4-D	ND	10	ug/l							
Dalapón	ND	10	ug/l							
Dacthal acid metabolites	ND	1.0	ug/l							
Dicamba	ND	1.5	ug/l							
Dinoseb	ND	2.0	ug/l							
Pentachlorophenol	ND	0.20	ug/l							
Picloram	ND	1.0	ug/l							
2,4,5-TP (Silvex)	ND	1.0	ug/I							
Surrogate: 2.4-Dichlorophenylacetic acid	17.8		ug/I	20.1		89	70-130			
LCS Analyzed: 08/19/2008 (C8H1808-F	BS1)									
Bentazon	0.714	2.0	ug/l	0.802		89	70-130			
2,4-D	0.653	10	ug/l	0.802		81	70-130			
Dalapon	0.817	10	ug/l	0.802		102	70-130			
Daethal acid metabolites	0.723	1.0	ug/l	0.802		90	70-130			
Dicamba	0.364	1.5	ug/I	0.401		91	70-130			
Dinoseb	0.690	2.0	ug/I	0.802		86	70-130			
Pentachlorophenol	0.0735	0.20	ug/I	0.0802		92	70-130			
Picloram	0.361	1.0	ug/l	0.401		90	70-130			
2,4,5-TP (Silvex)	0.198	1.0	ug/l	0.201		99	70-130			
Surrogate: 2.4-Dichlorophenylacetic acid	20.8		ug/I	20.1		104	70-130			
LCS Dup Analyzed: 08/19/2008 (C8H18	808-BSD1)									
Bentazon	2.18	2.0	ug/I	2.41		91	70-130	2	20	
2,4-D	2.08	10	ug/l	2.41		86	70-130	6	20	
Dalapon	2.27	10	ug/I	2.41		94	70-130	8	20	
Dacthal acid metabolites	2.18	1.0	ug/l	2.41		90	70-130	0	20	
Dicamba	1.11	1.5	ug/l	1.20		92	70-130	2	20	
Dinoseb	2.08	2.0	ug/I	2.41		86	70-130	O	20	
Pentachlorophenol	0.223	0.20	ug/I	0.241		93	70-130	1	20	
Picloram	1.07	1.0	ug/l	1.20		89	70-130	1	20	
2,4,5-TP (Silvex)	0.573	1.0	ug/I	0.602		95	70-130	3	20	
Surrogate: 2.4-Dichlorophenylacetic acid	18.9		ug/l	20.1		94	70-130			

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

CHLORINATED ACIDS (EPA 515.4)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C8H1808 Extracted: 08/18/08	resur	E.IIII	Cints	Level	Result	MILLE	Limits	KI D	Lillin	Quamiers
Matrix Spike Analyzed: 08/19/2008 (Ca	8H1808-MS1)				Source: C	CRH0376-	01			
Bentazon	0.468	2,0	ug/l	0.800	ND	59	70-130			M2
2,4-D	0.657	10	ug/I	0.800	ND	82	70-130			
Dalapon	2.80	10	ug/l	0.800	ND	350	70-130			MI
Dacthal acid metabolites	0.767	1.0	ug/l	0.800	ND	96	70-130			
Dicamba	0.413	1.5	ug/l	0.400	ND	103	70-130			
Dinoseb	0.689	2.0	ug/l	0.800	ND	86	70-130			
Pentachlorophenol	0.0653	0.20	ug/l	0.0800	ND	82	70-130			
Picloram	0.361	1.0	ug/l	0.400	ND	90	70-130			
2.4,5-TP (Silvex)	0.181	1.0	ug/l	0.200	ND	91	70-130			
Surrogate: 2,4-Dichlorophenylacetic acid	20.1		ug/I	20.0		100	70-130			
		1.0			ND					



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2105 Extracted: 08/21/08										
Blank Analyzed: 08/21/2008 (C8H210:	5-BLK1)									
Aldicarb Sulfoxide	ND	3.0	ug/l							
Aldicarb Sulfone	ND	2.0	ug/l							
Oxamyl	ND	20	ug/l							
Methomyl	ND	2.0	ug/l							
3-Hydroxycarbofuran	ND	3.0	ug/l							
Aldicarb	ND	3.0	ug/l							
Carbofuran	ND	5.0	ug/l							
Carbaryl	ND	5.0	ug/l							
LCS Analyzed: 08/21/2008 (C8H2105-	BS1)									
Aldicarb Sulfoxide	10.6	3.0	ug/l	10.0		106	83-127			
Aldicarb Sulfone	10.7	2.0	ug/l	10.0		107	84-126			
Oxamyl	10.9	20	ug/I	10.0		109	84-127			
Methomyl	11.3	2.0	ug/I	10.0		113	76-129			
3-Hydroxycarbofuran	10.9	3.0	ug/l	10.0		109	81-122			
Aldicarb	10.3	3.0	ug/l	10.0		103	77-124			
Carbofuran	10.1	5.0	ug/I	10.0		101	86-118			
Carbaryl	10.5	5.0	ug/l	10.0		105	81-125			
LCS Dup Analyzed: 08/22/2008 (C8H2	(105-BSD1)									
Aldicarb Sulfoxide	19.9	3.0	ug/l	20.0		99	83-127	6	18	
Aldicarb Sulfone	20.3	2.0	ug/L	20.0		101	84-126	6	18	
Oxamyl	21.0	20	ug/l	20.0		105	84-127	4	17	
Methomyl	21.4	2.0	ug/l	20.0		107	76-129	5	18	
3-Hydroxycarbofuran	20.6	3.0	ug/l	20.0		103	81-122	6	16	
Aldicarb	19.6	3.0	ug/l	20.0		98	77-124	5	23	
Carbofuran	18.8	5.0	ug/l	20.0		94	86-118	8	16	
Carbaryl	19.8	5.0	ug/l	20.0		99	81-125	6	16	

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2105 Extracted: 08/21/08										
Matrix Spike Analyzed: 08/21/2008 (C	8H2105-MS1)			Source: (RH0571-	01			
Aldicarb Sulfoxide	21.3	3.0	ug/l	20.0	ND	106	65-135			
Aldicarb Sulfone	21.5	2.0	ug/l	20.0	ND	107	65-135			
Oxamyl	22.0	20	ug/l	20.0	ND	110	65-135			
Methomyl	22.3	2.0	ug/l	20.0	ND	112	65-135			
3-Hydroxycarbofuran	21.8	3.0	ug/I	20.0	ND	109	65-135			
Aldicarb	20.2	3.0	ug/l	20.0	ND	101	65-135			
Carbofuran	20.3	5.0	ug/l	20.0	ND	102	65-135			
Carbaryl	21.2	5.0	ug/l	20.0	ND	106	65-135			



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

ENDOTHALL (EPA 548.1)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H1807 Extracted: 08/18/08										
Blank Analyzed: 08/19/2008 (C8H1807-	BLK1)									
Endothall	ND	45	ug/l							
LCS Analyzed: 08/19/2008 (C8H1807-B	S1)									
Endothall	55.4	45	ug/l	50.0		111	45-125			
LCS Dup Analyzed: 08/19/2008 (C8H18	(07-BSD1)									
Endothall	47.3	45	ug/l	50.0		95	45-125	16	35	
Matrix Spike Analyzed: 08/19/2008 (C8	H1807-MS1)				Source: C	RH0621-	01			
Endothall	5.78	45	ug/l	50.0	ND	12.	45-125			M2



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

GLYPHOSATE (EPA 547)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C8H1602 Extracted: 08/16/08										
Blank Analyzed: 08/16/2008 (C8H1602-	BLK1)									
Glyphosate	ND	25	ug/l							
LCS Analyzed: 08/16/2008 (C8H1602-B	S1)									
Glyphosate	20.7	25	ug/I	25.0		83	80-110			
LCS Dup Analyzed: 08/16/2008 (C8H16	02-BSD1)									
Glyphosate	42.1	25	ug/l	50.0		84	80-110	1	10	
Matrix Spike Analyzed: 08/16/2008 (C8	H1602-MS1)			Source: (CRH0376-	01			
Glyphosate	21.2	25	ug/T	25.0	ND	85	80-110			



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

DIQUAT/PARAQUAT (EPA 549.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H1601 Extracted: 08/	16/08									
Blank Analyzed: 08/16/2008 (C8	H1601-BLK1)									
Diquat	ND	4.0	ug/l							
Paraquat	ND	20	ug/l							
LCS Analyzed: 08/16/2008 (C8H	1601-BS1)									
Diquat	17.3	4.0	ug/l	20.0		87	70-105			
Paraquat	17.7	20	ug/l	20.0		88	55-110			
LCS Dup Analyzed: 08/16/2008	(C8H1601-BSD1)									
Diquat	17.2	4.0	ug/l	20.0		86	70-105	T	15	
Paraquat	17.8	20	ug/l	20.0		89	55-110	T	15	
Matrix Spike Analyzed: 08/16/20	008 (C8H1601-MS1)				Source: C	CRH0376-	01			
Diquat	19,1	4.0	ug/l	20.0	ND	95	70-105			
Paraquat	18.7	20	ug/l	20.0	ND	94	55-110			



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H1513 Extracted: 08/15	/08									
Duplicate Analyzed: 08/15/2008 (C	8H1513-DUP1)				Source: C	RH0572-	01			pН
Color	ND	1	Color Units		ND				20	
Batch: C8H1514 Extracted: 08/15	/08									
Blank Analyzed: 08/15/2008 (C8H)	1514-BLK1)									
Odor	ND	1.0	T.O.N.							
Batch: C8H1517 Extracted: 08/15	/08									
Blank Analyzed: 08/15/2008 (C8H)	1517-BLK1)									
Turbidity	ND	0.10	NTU							
Duplicate Analyzed: 08/15/2008 (C	8H1517-DUP1)				Source: C	RH0572-	01			
Turbidity	0.150	0.10	NTU		0.150			0	10	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H15092 Extracted: 08/15/08										
Blank Analyzed: 08/19/2008-08/20/2008	8 (8H15092-B)	LK1)								
Calcium	ND	0.10	mg/l							
Iron	ND	0.040	mg/l							
Magnesium	ND	0.020	mg/l							
Potassium	ND	0.50	mg/l							
Sodium	ND	0.50	mg/l							
LCS Analyzed: 08/19/2008-08/20/2008	(8H15092-BS1	1)								
Calcium	1.01	0.10	mg/I	1.00		101	85-115			
Iron	0.959	0.040	mg/l	1.00		96	85-115			
Magnesium	0.978	0.020	mg/l	1.00		98	85-115			
Potassium	10.3	0.50	mg/l	10.0		103	85-115			
Sodium	10.0	0.50	mg/l	10.0		100	85-115			
Matrix Spike Analyzed: 08/19/2008-08/	/20/2008 (8H1:	5092-MS1)			Source: II	RH0931-0	1			
Calcium	40.8	0.10	mg/l	1.00	37.6	321	70-130			MHA
Iron	0.959	0.040	mg/l	1.00	ND	96	70-130			
Magnesium	8.87	0.020	mg/l	1.00	7.57	130	70-130			MHA
Potassium	12.7	0.50	mg/I	10.0	2.14	106	70-130			
Sodium	27.6	0.50	mg/I	10.0	17.1	105	70-130			
Matrix Spike Analyzed: 08/19/2008-08/	20/2008 (81115	5092-MS2)			Source: II	RH0932-0	1			
Calcium	47.2	0.10	mg/l	1.00	43.3	391	70-130			1111.1
Iron	0.966	0.040	mg/I	1.00	ND	97	70-130			
Magnesium	7 92	0.020	mg/I	1.00	6,61	131	70-130			MHA
Potassium	12.4	0.50	mg/l	10.0	2.15	102	70-130			
Sodium	17.4	0.50	mg/l	10.0	7.67	97	70-130			
Matrix Spike Dup Analyzed: 08/19/200	8-08/20/2008 (8H15092-MSE	01)		Source: II	RH0931-0	1			
Calcium	42.1	0.10	mg/l	1.00	37.6	455	70-130	3	20	MHA
Iron	0.948	0.040	mg/l	1.00	ND	95	70-130	1	20	
Magnesium	8.97	0.020	mg/l	1.00	7.57	141	70-130	1	20	MHA
Potassium	12.6	0.50	mg/l	10.0	2.14	104	70-130	1	20	

TestAmerica Ontario



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H15098 Extracted: 08/15/08										
Blank Analyzed: 08/15/2008 (8H15098-	BLK1)									
Aluminum	ND	10	ug/l							
Uranium pCi/L (CA)	ND	1.0	pCi/L							
Antimony	ND	2.0	ug/l							
Arsenic	ND	1,0	ug/l							
Barium	ND	1.0	ug/I							
Beryllium	ND	0.50	ug/I							
Cadmium	ND	1.0	ug/I							
Chromium	ND	2.0	ug/l							
Copper	ND	2.0	ug/I							
Lead	ND	1.0	ug/I							
Manganese	ND	1,0	ug/l							
Nickel	ND	2.0	ug/l							
Selenium	ND	2,0	ug/l							
Silver	ND	1.0	ug/l							
Thallium	ND	1.0	ug/l							
Zinc	ND	20	ug/l							
LCS Analyzed: 08/15/2008 (8H15098-B	S1)									
Aluminum	79.0	10	ug/1	80.0		99	85-115			
Uranium pCi/L (CA)	53.2	1.0	pCi/L	53.6		99	85-115			
Antimony	75.6	2.0	ug/l	80.0		94	85-115			
Arsenic	75.4	1.0	ug/l	80.0		94	85-115			
Barium	75.4	1.0	ug/l	80.0		94	85-115			
Beryllium	79.2	0.50	ug/l	80.0		99	85-115			
Cadmium	76.7	1.0	ug/l	80.0		96	85-115			
Chromium	77.3	2.0	tig/l	80.0		97	85-115			
Copper	77.1	2.0	ug/l	80.0		96	85-115			
Lead	79.5	1.0	ug/l	80.0		99	85-115			
Manganese	76.7	1.0	ug/l	80.0		96	85-115			
Nickel	78.0	2.0	ug/l	80.0		98	85-115			
Selenium	76.7	2.0	ug/I	80.0		96	85-115			
Silver	76.6	1.0	ug/l	80.0		96	85-115			
Thallium	81.6	1.0	ug/l	80.0		102	85-115			
Zinc	76.9	-20	ug/l	80.0		96	85-115			

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

nnn

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H15098 Extracted: 08/15/08										
Matrix Spike Analyzed: 08/15/2008 (8	8H15098-MS1)				Source: 1	RH1352-0	1			
Aluminum	97.1	10	ug/l	80.0	10.1	109	70-130			
Uranium pCi/L (CA)	60.3	1.0	pCi/L	53.6	5.31	103	70-130			
Antimony	78.6	2.0	ug/I	80.0	ND	98	70-130			
Arsenic	80.3	1.0	ug/l	80.0	ND	100	70-130			
Barium	144	1.0	ug/l	80.0	67.5	95	70-130			
Beryllium	96.1	0.50	ug/l	80.0	ND	120	70-130			
Cadmium	75.9	1.0	ug/l	80.0	ND	95	70-130			
Chromium	101	2.0	ug/l	80.0	20.9	100	70-130			
Copper	73.8	2.0	ug/l	80.0	1.67	90	70-130			
Lead	76.6	1.0	ug/l	80.0	ND	96	70-130			
Manganese	81.2	1,0	ug/l	80.0	1.05	100	70-130			
Nickel	77.2	2.0	ug/l	80.0	4.39	91	70-130			
Selenium	85.3	2.0	ug/l	80.0	3.61	102	70-130			
Silver	73.6	1.0	ug/l	80.0	ND	92	70-130			
Thallium	78.2	1.0	ug/l	80.0	ND	98	70-130			
Zinc	75.9	20	ug/I	80.0	4.50	89	70-130			
Matrix Spike Analyzed: 08/15/2008 (8	3H15098-MS2)				Source: I	RH0951-0	1			
Aluminum	127	10	ug/l	80.0	45.9	102	70-130			
Uranium pCi/L (CA)	58.1	1.0	pCi/L	53.6	2,21	104	70-130			
Antimony	74.6	2.0	ug/l	80.0	ND	93	70-130			
Arsenic	81.2	1.0	ug/l	80.0	2.66	98	70-130			
Barium	97.1	1.0	ug/l	80.0	24.6	91	70-130			
Beryllium	86.9	0.50	ug/l	80.0	ND	109	70-130			
Cadmium	73.5	1.0	ug/l	80.0	ND	92	70-130			
Chromium	79.2	2.0	ug/l	80.0	ND	99	70-130			
Copper	77.2	2.0	ug/l	80.0	1.84	94	70-130			
Lead	78.9	1.0	ug/I	80.0	ND	99	70-130			
Manganese	83.8	1.0	ug/I	80.0	4.87	99	70-130			
Nickel	76.8	2.0	ug/l	80.0	1.15	95	70-130			
Selenium	79 7	2.0	ug/I	80.0	0.801	99	70-130			
Silver	72.5	1.0	ug/l	80.0	ND	91	70-130			
Thallium	79.9	1.0	ug/l	80.0	ND	100	70-130			
Zinc	79.3	20	ug/l	80.0	ND	99	70-130			

TestAmerica Ontario



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier
Batch: 8H15098 Extracted: 0	8/15/08									
Matrix Spike Dup Analyzed: (08/15/2008 (8H15098-M	JSD1)			Source: I	RH1352-0	1			
Aluminum	95.9	10	ug/l	80.0	10.1	107	70-130	1	20	
Uranium pCi/L (CA)	58.6	1.0	pCi/L	53.6	5.31	99	70-130	3	20	
Antimony	77.2	2.0	ug/l	80.0	ND	97	70-130	2	20	
Arsenic	77.6	1.0	ug/l	80.0	ND	97	70-130	3	20	
Barium	139	1.0	ug/l	80.0	67.5	89	70-130	4	20	
Beryllium	93.8	0.50	ug/l	80.0	ND	117	70-130	2	20	
Cadmium	74.7	1.0	ug/l	80.0	ND	93	70-130	2	20	
Chromium	97.6	2.0	ug/l	80.0	20.9	96	70-130	3	20	
Copper	72.1	2.0	ug/l	80.0	1.67	88	70-130	2	20	
Lead	75.4	1.0	ug/I	80.0	ND	94	70-130	2	20	
Manganese	79.8	1.0	ug/l	80.0	1.05	98	70-130	2	20	
Nickel	75.6	2.0	ug/l	80.0	4.39	89	70-130	2	20	
Selenium	83.1	2.0	ug/1	80.0	3.61	99	70-130	3	20	
Silver	72.2	1.0	ug/1	80.0	ND	90	70-130	2	20	
Thallium	76.9	1.0	ug/l	80.0	ND	96	70-130	2	20	
Zine	75.0	20	ug/l	80.0	4.50	88	70-130	.1	20	
Batch: 8H18089 Extracted: 08	8/18/08									
Blank Analyzed: 08/18/2008 (8	BH18089-BLK1)									
Mercury	ND	0.00020	mg/l							
LCS Analyzed: 08/18/2008 (8E	118089-BS1)									
Mercury	0.00789	0.00020	mg/l	0.00800		99	85-115			
Matrix Spike Analyzed: 08/18/	/2008 (8H18089-MS1)				Source: I	RH0734-0	1			
Mercury	0.00737	0.00020	mg/l	0.00800	ND	92	70-130			

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H18089 Extracted: 08/18/	08									
Matrix Spike Dup Analyzed: 08/18	/2008 (8H18089-M	ISD1)			Source: I	RH0734-0	1			
Mercury	0.00741	0.00020	mg/I	0.00800	ND	93	70-130	0	20	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H14050 Extracted: 08/14/08										
Blank Analyzed: 08/14/2008 (8H14050-	BLK1)									
Nitrate-N	ND	0.11	mg/l							
Nitrate-NO3	ND	0.50	mg/l							
Nitrite-N	ND	0.15	mg/l							
Nitrate/Nitrite-N	ND	0.26	mg/I							
Sulfate	ND	0.50	mg/I							
LCS Analyzed: 08/14/2008 (8H14050-B	S1)									
Nitrate-N	1.15	0.11	mg/l	1.13		102	90-110			
Nitrate-NO3	5.11	0.50	mg/l	5.00		102	90-110			
Nitrite-N	1.45	0.15	mg/l	1.52		95	90-110			
Sulfate	10.1	0.50	mg/l	10.0		101	90-110			
Matrix Spike Analyzed: 08/14/2008 (8H	14050-MS1)				Source: I	RH1264-0	1			
Nitrate-N	4.28	0.11	mg/l	1.13	3.14	102	80-120			
Nitrate-NO3	19.0	0.50	mg/l	5.00	13.9	102	80-120			
Nitrite-N	1,55	0.15	mg/l	1.52	ND	102	80-120			
Sulfate	19.5	0.50	mg/I	10.0	8.92	105	80-120			
Matrix Spike Analyzed: 08/14/2008 (8H	14050-MS2)				Source: I	RH1345-0	1			
Nitrate-N	4.70	0.22	mg/l	1.13	3.61	97	80-120			
Nitrate-NO3	20.8	1.0	mg/I	5,00	16.0	97	80-120			
Nitrite-N	1.48	0.30	mg/I	1.52	ND	97	80-120			
Sulfate	28.2	1.0	ing/I	10.0	17.9	103	80-120			
Matrix Spike Dup Analyzed: 08/14/2008	8 (8H14050-N	ISD1)			Source: I	RH1264-0	1			
Nitrate-N	4.24	0.11	mg/l	1.13	3.14	98	80-120	1	20	
Nitrate-NO3	18.8	0.50	mg/l	5.00	13.9	98	80-120	1	20	
Nitrite-N	1.42	0.15	mg/l	1.52	ND	94	80-120	9	20	
Sulfate	18.9	0.50	mg/l	10.0	8.92	100	80-120	3	20	

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H14114 Extracted: 08/14/08										
Blank Analyzed: 08/14/2008 (8H14114	I-BLK1)									
Surfactants (MBAS)	ND	0.10	mg/l							
LCS Analyzed: 08/14/2008 (8H14114-	BS1)									
Surfactants (MBAS)	0.259	0.10	mg/l	0.250		103	90-110			
Matrix Spike Analyzed: 08/14/2008 (8	H14114-MS1)				Source: I	RH1294-0	1			
Surfactants (MBAS)	0.275	0.10	mg/l	0.250	ND	110	50-125			
Matrix Spike Dup Analyzed: 08/14/20	08 (8H14114-N	ISD1)			Source: I	RH1294-0	1			
Surfactants (MBAS)	0.280	0.10	mg/l	0.250	ND	112	50-125	2	20	
Batch: 8H15039 Extracted: 08/15/08										
Blank Analyzed: 08/15/2008 (8H15039	-BLK1)									
Chloride	ND	0.50	mg/l							
LCS Analyzed: 08/15/2008 (8H15039-	BS1)									
Chloride	4.84	0.50	mg/I	5.00		97	90-110			
Matrix Spike Analyzed: 08/15/2008 (8)	H15039-MS1)				Source: I	RH1374-0	1			
Chloride	23.9	0.50	mg/l	5.00	18.8	101	80-120			
Matrix Spike Analyzed: 08/15/2008 (8	H15039-MS2)				Source: I	RH1382-0	1			
Chloride	282	5.0	mg/l	100	205	77	80-120			M2
Matrix Spike Dup Analyzed: 08/15/200	08 (8H15039-M	ISD1)			Source: I	RH1374-0	1			
Chloride	23.9	0.50	mg/l	5.00	18.8	102	80-120	0	20	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

INORGANICS

	6	Reporting		Spike	Source	N DEC	%REC	0.00	RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H15056 Extracted: 08/15/0	8									
Blank Analyzed: 08/15/2008 (8H150	56-BLK1)									
Alkalinity as CaCO3	ND	2.0	mg/l							
Alkalinity as CaCO3	ND	2.0	mg/l							
Bicarbonate Alkalinity as CaCO3	ND	2.0	mg/l							
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l							
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l							
Duplicate Analyzed: 08/15/2008 (8H	15056-DUP1)				Source: C	RH0590-	01			
Alkalinity as CaCO3	134	2.0	mg/l		136			1	20	
Alkalinity as CaCO3	134	2.0	mg/I		136			1	20	
Bicarbonate Alkalinity as CaCO3	134	2.0	mg/l		136			1	20	
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l		ND				20	
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l		ND				20	
Reference Analyzed: 08/15/2008 (8H	(15056-SRM1)									
Alkalinity as CaCO3	234	2.0	mg/l	249		94	90-110			
Alkalinity as CaCO3	234	2.0	mg/l	249		94	90-110			
Batch: 8H15063 Extracted: 08/15/0	8									
Duplicate Analyzed: 08/15/2008 (811	15063-DUP1)				Source: I	RH1286-0	12			
pH	7.28	0.100	pH Units		7.24			1.	5	HFT
Batch: 8H18034 Extracted: 08/18/08	8									
Duplicate Analyzed: 08/18/2008 (8H	18034-DUP1)				Source: 1	RH1336-0	1			
Specific Conductance	432	1.0 0	imhos/em @ 25C		423			2	5	

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

INORGANICS

		Reportin	ıg	Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H18034 Extracted: 08/18/08										
Reference Analyzed: 08/18/2008 (8H180	34-SRM1)									
Specific Conductance	561	1.0	umhos/cm @ 25C	530		106	90-110			
Batch: 8H18035 Extracted: 08/18/08										
Blank Analyzed: 08/18/2008 (8H18035-1	BLK1)									
Total Dissolved Solids	ND	10	mg/l							
LCS Analyzed: 08/18/2008 (8H18035-BS	81)									
Total Dissolved Solids	980	10	mg/l	1000		98	90-110			
Duplicate Analyzed: 08/18/2008 (8H180	35-DUP1)				Source: I	RH1042-0	3			
Total Dissolved Solids	226	10	mg/l		225			0	10	
Batch: 8H18096 Extracted: 08/18/08										
Blank Analyzed: 08/18/2008 (8H18096-I	BLK1)									
Total Cyanide	ND	0.025	mg/l							
LCS Analyzed: 08/18/2008 (8H18096-BS	51)									
Total Cyanide	0.190	0.025	mg/l	0.200		95	90-110			
Matrix Spike Analyzed; 08/18/2008 (8H	18096-MS1)				Source: I	RH1501-0	1			
Total Cyanide	0.202	0.025	mg/l	0.200	ND	101	70-115			
Matrix Spike Dup Analyzed: 08/18/2008	(8H18096-N	ISD1)			Source: I	RH1501-0	1			
Total Cyanide	0.191	0.025	mg/l	0.200	ND	96	70-115	5	15	

TestAmerica Ontario



1014 E. Cooley Dr., Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H19041 Extracted: 08/19/08										
Blank Analyzed: 08/19/2008 (8H1904)	I-BLK1)									
Fluoride	ND	0.10	mg/I							
LCS Analyzed: 08/19/2008 (8H19041-	BS1)									
Fluoride	1.04	0.10	mg/l	1.00		104	90-110			
Matrix Spike Analyzed: 08/19/2008 (8	H19041-MS1)				Source: I	RH1151-0)2			
Fluoride	1.61	0.10	mg/l	1.00	0.626	99	80-120			
Matrix Spike Dup Analyzed: 08/19/20	08 (8H19041-N	(ISD1)			Source: I	RH1151-0)2			
Fluoride	172	0.10	mg/l	1.00	0.626	109	80-120	6	20	
Batch: 8H22061 Extracted: 08/22/08										
Blank Analyzed: 08/22/2008 (8H22061	-BLK1)									
Perchlorate	ND	4.0	ug/l							
LCS Analyzed: 08/22/2008 (8H22061-	BS1)									
Perchlorate	26.6	4.0	ug/l	25.0		106	85-115			
Matrix Spike Analyzed: 08/22/2008 (8	8H22061-MS1)			Source: IRII1223-06						
Perchlorate	297	40	ug/I	250	93.9	81	80-120			
Matrix Spike Dup Analyzed: 08/22/20	08 (8H22061-X	ISD1)			Source: 1	RH1223-0	6			
Perchlorate	311	40	ug/I	250	93.9	87	80-120	5	20	



1014 E. Cooley Dr., Ste A. Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

EPA-5 1613B-Tetras

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8235233 Extracted: 08/21/08										
Blank Analyzed; 08/25/2008 (G8H220	0000233B)				Source:					
2,3,7,8-TCDD	ND	5.0	pg/L				~			
Surrogate: 13C-2,3,7,8-TCDD	1200		pg/L	2000		61	25-141			
LCS Analyzed: 08/25/2008 (G8H2200	00233C)				Source:					
2,3,7.8-TCDD	177	4.9	pg/L	200		89	73-146			
Surrogate: 13C-2,3,7.8-TCDD	1290		pg/L	2000		65	25-141			



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

EPA 900.0 MOD

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8234148 Extracted: 08/21/08										
Matrix Spike Analyzed: 08/25/2008 (F8H200272001S)			Source: C	RH0590-	01			
Gross Alpha	202	3	pCi/L	260	14.4	72	44-150			
Duplicate Analyzed: 08/25/2008 (F81	I200272001X)				Source:					
Gross Alpha	6.5	3	pCi/L				<u>.</u>	75	40	U
Blank Analyzed: 08/25/2008 (F8H210	0000148B)				Source:					
Gross Alpha	-0.04	3	pCi/L				2,			U
LCS Analyzed: 08/25/2008 (F8H2100	00148C)				Source:					
Gross Alpha	52.8	3	pCi/L	49.4		107	72-138			



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

METHOD BLANK/QC DATA

EPA 903.0 MOD

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8233375 Extracted: 08/21/08										
Blank Analyzed: 08/25/2008 (F8H200	000375B)				Source:					
Radium (total)	-0.005	1	pCi/L				\sim			U
LCS Analyzed: 08/25/2008 (F8H2000)	00375C)				Source:					
Radium (total)	11	1	pCi/L	11.3		97	71-125			
LCS Dup Analyzed: 08/25/2008 (F8II	200000375L)				Source:					
Radium (total)	11	I	pCi/L	11.3		98	71-125	0	40	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08 Received: 08/14/08

EPA 904 MOD

METHOD BLANK/QC DATA

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8233373 Extracted: 08/20/08										
Blank Analyzed: 08/27/2008 (F8H2000	00373B)				Source:					
Radium 228	0.31	1	pCi/L				-			L
LCS Analyzed: 08/27/2008 (F8H200000	0373C)				Source:					
Radium 228	7.25	1	pCi/L	7.69		94	61-139			
LCS Dup Analyzed: 08/27/2008 (F8H2	00000373L)				Source:					
Radium 228	8.4	1	pCi/L	7.69		109	61-139	14	40	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0590

Sampled: 08/14/08

Received: 08/14/08

METHOD BLANK/QC DATA

EPA 906.0 MOD

	Reporting		Spike	Source		%REC		RPD	Data
Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
H2002720018	5)			Source: C	CRH0590-	01			
4910	500	pCi/L	4930	140	97	27-150			
00272001X)				Source:					
130	500	pCi/L				-	10	40	U
0199B)				Source:					
240	500	pCi/L				1+0			U
199C)				Source:					
4980	500	pCi/L	4930		101	67-111			
	H200272001S 4910 00272001X) 130 00199B) 240 199C)	Result Limit H200272001S) 4910 500 00272001X) 130 500 00199B) 240 500 199C)	Result Limit Units H200272001S) 4910 500 pCi/L 00272001X) 130 500 pCi/L 00199B) 240 500 pCi/L	Result Limit Units Level H200272001S) 4910 500 pCi/L 4930 00272001X) 130 500 pCi/L 10199B) 240 500 pCi/L 199C)	Result Limit Units Level Result	Result Limit Units Level Result %REC H200272001S) Source: CRH0590- 4910 500 pCi/L 4930 140 97 00272001X) Source: Source: 130 500 pCi/L Source: 240 500 pCi/L Source: 500 rce: 500 rce:	Result Limit Units Level Result %REC Limits	Result Limit Units Level Result %REC Limits RPD	Result Limit Units Level Result %REC Limits RPD Limit



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Attention: Mike Haslam

Project ID: Title 22 Testing

Title 22 Testing Sampled: 08/14/08 Report Number: CRH0590 Received: 08/14/08

DATA QUALIFIERS AND DEFINITIONS

C	Calibration Verification recovery was above the method control limit for this analyte. Analyte no	ot detected, data not
	impacted.	

FT	This analysis was performed in the field by the sampler whose name appears on the attached Chain of Custody form.
----	---

THE HORDING THE FOR THIS TEST IS INFINEDIALE. IT WAS ANALYZED IN THE TADOLATORY AS SOON AS DOSSIDE AREI TECH	HFT	The holding time for this test is immediate. It was a	malyzed in the laboratory as so	oon as possible after receip
--	-----	---	---------------------------------	------------------------------

J Result is greater than sample detection limit but less than stated reporting limit.

Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits.
 Analyte not detected, data not impacted.

M1 The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
 M2 The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

MHA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery

information. See Blank Spike (LCS).

pH pH = 7.5

R-7 LFB/LFBD RPD exceeded the acceptance limit. Recovery met acceptance criteria.

RL1 Reporting limit raised due to sample matrix effects.

U Result is less than the sample detection limit.

Z2 Surrogate recovery was above the acceptance limits. Data not impacted.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference
T.O.N. Threshhold Odor Number
SI Units Saturation Index Units



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing

Sampled: 08/14/08 Report Number: CRH0590 Received: 08/14/08

Attention: Mike Haslam

11001 Etiwanda Avenue

Layne Christensen

Fontana, CA 92337

Certification Summary

TestAmerica Ontario

Method	Matrix	Nelac	California
EPA 180.1	Water	X	X
EPA 504.1	Water	X	X
EPA 505	Water	X	X
EPA 515.4	Water	X	X
EPA 524.2	Water	X	X
EPA 525.2	Water	X	X
EPA 531.1	Water	X	
EPA 547	Water	X	X
EPA 548.1	Water	X	X
EPA 549.2	Water	X	X
Field Test	Water		
SM2120B	Water	N/A	N/A
SM2150B	Water	N/A	N/A
SRL 524M-123TCP	Water		

Subcontracted Laboratories

EMS Laboratories-Sub California Cert #1119

117 West Bellvue Drive - Pasadena, CA 91105-2503

Method Performed: EPA 100.2 Samples: CRH0590-01

STL - St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: EPA 900.0 MOD

Samples. CRH0590-01

Method Performed: EPA 903.0 MOD

Samples: CRH0590-01

Method Performed: EPA 904 MOD

Samples: CRH0590-01

Method Performed: EPA 906.0 MOD

Samples: CRH0590-01

STL-Sacramento Nelac Cert #01119CA, Arizona Cert #AZ0708

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B-Tetras

Samples: CRH0590-01

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: Title 22 Testing 11001 Etiwanda Avenue Title 22 Testing

11001 Etiwanda Avenue Title 22 Testing Sampled: 08/14/08 Fontana, CA 92337 Report Number; CRH0590 Received: 08/14/08

Attention: Mike Haslam

TestAmerica - Irvine, CA Nelac Cert #01108CA. California Cert #1197, Arizona Cert #AZ0671, Nevada Cert #CA-72

17461 Derian Avenue. Suite 100 - Irvine, CA 92614

Method Performed: Calc Samples: CRH0590-01

Method Performed: EPA 150.1 Samples: CRH0590-01

Method Performed: EPA 200.7 Samples: CRH0590-01

Method Performed: EPA 200.8 Samples: CRH0590-01

Method Performed: EPA 245.1 Samples: CRH0590-01

Method Performed: EPA 300.0 Samples: CRH0590-01

Method Performed: EPA 314.0 Samples: CRH0590-01

Method Performed: SM 4500-F-C Samples: CRH0590-01

Method Performed: SM2320B Samples CRH0590-01

Method Performed: SM2340B Samples: CRH0590-01

Method Performed: SM2510B Samples: CRH0590-01

Method Performed: SM2540C Samples: CRH0590-01

Method Performed: SM4500-CN-C,E

Samples: CRH0590-01

Method Performed: SM5540-C Samples: CRH0590-01

TestAmerica Ontario



2852 Alton Avenue, Irvine, CA 92606 (949) 261-1022 EAX (949) 261-1228 (1014 East Cooley Drive, Sulla A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046 9484 Chesapeake Dr., Ste. 805, San Diego, CA 92123 (858) 505-9596 FAX (858) 505-8889 9830 South 51st, Sulte B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851 2520 East Sunset, #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

7 day remaining hold time <48 hours. 48 hours 'urnaround Tirpe": (check one) *Surcharges may be applied for ☐ Manganese ☐ Magnesium ☐ Nickel☐ Potassium☐ Selenium Immediate □ Vanadlum □ Zinc TEMD: 24. Sample Integrity: Temp: On Ice:X ☐ Mercury O Thallium El Sodium of D Silver O other: Page 1 Q 72 Hours 10-11 Normal X 24 Hours ☐ Atuminum
☐ Antimony
☐ Arsenic
☐ Berylium
☐ Berylium
☐ Cadmium
☐ Calcium
☐ Chromium
☐ Chromium 4 Intact. OH:5. 02 Date/Time. Date/Time: Date/Time: 27-1643. POE # PWS Kow. Ch Yes RADIO 105, CA 1 Samples acidified after dechlorination? P.O./Project Name: Harper Lake S S norganic Chemicals Miller Braces Seneral Physical (see fee schedule) LICTOR DRINKING WATER CHAIN OF CUSTODY FORM Compliance Sample: Yes General Minerals (see fee schedule) Data to state's database? Yes (PWS ID required) Vetals (Specify) Project Manager: leterotophic Plate Count (HPC) Received in Lab by: Fecal [] ☐ latoT , motilo. Received by Received by Siqual / Paraqual 549.2 Findothall 548.1 Chyphosate 547 8-14-08/1200 Date/Time: Dake/Time; Date/Time: Carbamates 531.1 100 Chlorinated Acids 515.3 3 9233 Pesticides and PCBs 505 🗖 508.1 🗍 30 EDB / DBCP / TCP 504.1 Compacy Semivolatiles Reg. D UnReg. D 525.2 Zip: Trihalomethanes Only 524.2 CA 390-6097 Volatiles Reg. ☐ UnReg. ☐ 524.2 Number of Containers State: 1030 ChersTENSEN Relinquished by: BMIT Relinquished by: Relinguiched by Fax: (909) Remarks: Dalqma2 alsC TIMBLAM (sideT xittsM see) xittsM GW 350-2833 Sampler(s) Name & Signature TW - Treated Water (Point of Entry) LAYNE RYKEN-WEIL-S RW - Raw Water (Source) Sample I.D DUTAN RW - Recreational Water 10011 DW - Drinking Water SW - Surface Water GW - Groundwater Matrix Types Client Name: 1905 Address: City: Tel:/

Form Rev. 3-27-03 Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project.

Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed to in writing.

SUBCONTRACT ORDER

TestAmerica Ontario CRH0590

123268

SENDING LABORATORY:

TestAmerica Ontario 1014 E. Cooley Dr, Ste A

Colton, CA 92324 Phone: (909) 370-4667 Fax: (909) 370-1046

Project Manager: Melissa Cunningham

RECEIVING LABORATORY:

EMS Laboratories-Sub 117 West Bellvue Drive Pasadena, CA 91105-2503 Phone :626-568-4065

Fax: 626-796-5282

Project Location: California

Receipt Temperature:

1

Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: CRH0590-01	Water		Sampled: 08/14/08 1	10:30
Asbestos By TEM-O	Present/No	Pri08/27/08	08/16/08 10:30	
Containers Supplied:				
1 Liter Poly w/ Nitric- Acid (Z)				i .

Withaut Dosect 8-15-08 1630 Apr 8-15-08 10:38

Released By Date/Time Received By Date/Time

Released By

Date/Time

Received By

Date/Time

Page 1 of 1

DATE:

August 21, 2008

CLIENT:

TestAmerica, Ontario 1014 E. Cooley Dr. Ste. A

Colton, CA 92324

ATTENTION:

Melissa Cunningham

REFERENCE:

CRH0590

REPORT NO:

123268

SUBJECT:

ANALYSIS OF WATER SAMPLE FOR ASBESTOS BY TEM

ACCREDITED:

California Department of Health Services (ELAP-1119)

The date and times of collection, receipt, filtration, and analysis are as follows:

SAMPLE NO:

CRH0590-01

COLLECTED:

8/14/08 at 1030

RECEIVED:

8/15/08

FILTERED:

8/15/08 at 1120

ANALYZED:

8/19/08

The sample was analyzed for fibers >10 μ m in length to conform with the drinking water document, EPA 600 R 94 134, 100.2. This regulation calls for an MCL (maximum contaminant level) of 7 MFL and an analytical sensitivity level of 0.2 MFL.

No asbestos structures >10 μ m in length were detected. The analytical sensitivity of 0.2 MFL was reached.

The results of the analysis and the detection limit are summarized on the following pages.

Respectfully submitted, EMS LABORATORIES, INC.

Laboratory Director

BMK/mt

NOTE: The results of the analysis are based upon the samples submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples.

This report, from a NIST laboratory through NVLAP, must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

This report shall not be reproduced, except in full, without the written approval of EMS Laboratories, Inc.

Any deviation or exclusion from the test method is noted in this cover letter.

Unless otherwise noted in this cover letter, the samples were received properly packaged, clearly identified and intact.

ANALYSIS OF WATER BY TEM (EPA-600 R 94 134) EPA 100.2

LAB NO:

123268

CLIENT:

Test America

		FILTER MEDIA DATA					
Laboratory I.D.	Client I.D.	Туре	Diameter mm	Effective Area mm^2	No. of G.O.	Analyzed Area, mm^2	Sample Volume (ml)
123268-1	CRH0590-01*	PC	47	1017	6	0.093	100
					1		

^{*} FOR FIBERS > 10um ONLY

INDIVIDUAL ANALYTICAL RESULTS

Laboratory	Client			Detection	CONCENTRATION (MFL)			
I.D.	I.D.	Str	Str >5um	Str >10um	Limit (MF/L)	Str	Str >5um	Str >10um
123268-1	CRH0590-01*	1-1-1		N.D.	0.2	11/4/11	-	N.D.
			-					
					w			
		-						
		1			1_1 _ 1_1			

^{*} FOR FIBERS > 10um ONLY

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.

Authorized Signature

TEM 7A (1994)

Analysis of Water by Transmission Electron Microscopy (EPA-600 R 94 134) EPA 100.2

EMS No.	123268	Client	Test America	
Sample No. C	RH0590-01		Date Analyzed	8/19/2008
Fibers > 10 μm	in length (chrysotile)		BDL*	MFL
Mass (chrysotile	e)		0	ug/L
More/Less than in Sample (chry			LESS	
Poisson 95% C	onfidence Interval		0 to0	0.7 MFL
Detection Limit			0.2	MFL
* BDL : Below [Detection Limit; MFL: Million Fiber	s per Liter		

Particle Size Distribution (Chrysotile)

Particle Length - Microns

0 -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 - 4.99	5.00 - 9.99	10 & UP
0	0	0	0	0	0	0	0
			Particle Widt	h - Microns			
O04	.0509	.114	.1519	.224	.2549	.5099	1 & UP
0	0	0	0	0	0	0	0
			Aspect R	atio L/W			
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 - 99	100 - 199	200 & UP
0	0	0	0	0	0	0	0

TEM 7B (1994)

Analysis of Water by Transmission Electron Microscopy (EPA-600/4-83-043)

EMS No.	123268	Date Analyzed	8/19/2008
Client	Test America		
Sample No.	EMS BLANK		
Fibers (chrys	otile)	ND	MFL
> 5 Micron le	ngth (chrysotile)	ND	MFL
Mass (chryso	tile)	0	ug/L
More/Less th in Sample (ch		LESS	
Sensitivity Le	vel	0.01	MFL

Particle Size Distribution (Chrysotile)

		Particle Lengt	h - Microns		
O -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 & UP
0	0	0	0	0	0.
		Particle Width	- Microns		
O04	.0509	.114	.1519	.224	.25 & UP
0	0	0	0	0	0
		Aspect Rat	tio L/W		
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 & UP
0	0	0	0	0	0



ANALYTICAL REPORT

PROJECT NO. TA-C

TA-C

Lot #: F8H200272

TestAmerica - Ontario

TestAmerica - Ontario 1014 E. Cooley Dr Suite A Colton, CA 92324

TESTAMERICA LABORATORIES, INC.

Sherryl Adam Project Manager

August 29, 2008

Case Narrative LOT NUMBER: F8H200272

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on August 20, 2008. This sample is associated with your TA-C project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Gross Alpha/Beta by EPA 900.0

The Gross Alpha reporting limit was not met due to a reduction of sample size attributed to the sample's high residual mass. The analytical results are reported.

Affected Samples:

F8H200272 (1): CRH0590-01

Total Alpha Radium by GFPC

Total Alpha Radium sample was filtered due to high solid content in the sample matrix.

Affected Samples:

F8H200272 (1): CRH0590-01

METHODS SUMMARY

F8H200272

PARAME'	TER	ANALYTICAL METHOD	PREPARATION METHOD
Gross 2	Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
H-3 by	Distillation & LSC	EPA 906.0 MOD	
Radium	-228 by GFPC	EPA 904 MOD	
Total Alpha Radium by GFPC		EPA 903.0 MOD	
Refere	nces:		
EPA	"EASTERN ENVIRONMENTAL RADIAT PROCEDURES MANUAL" US EPA EP		

SAMPLE SUMMARY

F8H200272

 WO # SAMPLE# CLIENT SAMPLE ID
 SAMPLED DATE
 SAMPLED TIME

 KVGKK 001 CRH0590-01
 08/14/08 10:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Ontario

Client Sample ID: CRH0590-01

Radiochemistry

Lab Sample ID: F8H200272-001

Work Order: KVGKK

Matrix:

WATER

Date Collected:

08/14/08 1030

Date Received:

08/20/08 0930

Parameter	Result	Qual	Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gross Alpha/Beta	EPA 900		p	Ci/L	Batch #	8234148	Yld %
Gross Alpha	14.4		7.2	3.0	7.7	08/21/08	08/25/08
Radium 228 by GFP	C EPA 904 MOD		po	Ci/L	Batch #	8233373	Yld % 67
Radium 228	0.64	J	0.38	1.00	0.57	08/21/08	08/27/08
TRITIUM (Distill)	by EPA 906.0	MOD	p	Ci/L	Batch #	8234199	Yld %
Tritium	140	Ū	170	500	280	08/21/08	08/22/08
Total Alpha Radiu	n EPA 903.0 M	ОD	p(Ci/L	Batch #	8233375	Yld % 99
Radium (total)	0.24	J	0.15	1.00	0.19	08/21/08	08/25/08

NOTE (S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only. Bold results are greater than the MDC

Result is greater than sample detection limit but less than stated reporting limit.

Result is less than the sample detection limit.

TestAmerica Ontario

Client Sample ID: CRH0590-01 DUP

Radiochemistry

Lab Sample ID: F8H200272-001X

Work Order:

Matrix:

KVGKK WATER

Date Collected:

08/14/08 1030

Date Received:

08/20/08 0	93	0
------------	----	---

Parameter	Result	Qual	Total Uncert. (2 g+/-)	RL	MDC	Prep Date	Analysis Date
Gross Alpha/Beta EPA	900			pCi/L	Batch	# 8234148	Yld %
Gross Alpha	6.5	U	6.9	3	.0 11	08/21/08	08/25/08
TRITIUM (Distill) by	EPA 906.0 MC)D		pCi/L	Batch	# 8234199	Yld %
Tritium	130	U	170	50	00 290	08/21/08	08/22/08

Data are incomplete without the case parrative.

MDC is determined by instrument performance only. Bold results are greater than the MDC

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID:

F8H200272

Matrix:

WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC		Prep Date	Lab Sample ID Analysis Date
Total Alpha Radio	ım EPA 903.0	MOD	pCi/L	Batch #	8233375	Yld %	94	F8H200000-375B
Radium (total)	-0.005	U	0.073	1.00	0.16		08/21/08	08/25/08
Radium 228 by GF	PC EPA 904 M	OD	pCi/L	Batch #	8233373	Yld %	67	F8H200000-373B
Radium 228	0.31	U	0.35	1.00	0.57		08/20/08	8 08/27/08
TRITIUM (Distill)	by EPA 906	.0 MOD	pCi/L	Batch #	8234199	Yld %		F8H210000-199B
Tritium	240	U	180	500	290		08/21/08	08/22/08
Gross Alpha/Beta	EPA 900		pCi/L	Batch #	8234148	Yld %		F8H210000-148B
Gross Alpha	-0.04	U	0.44	3.00	0.92		08/21/08	08/25/08

NOTE (S)

Data are incomplete without the case narrative.

 $[\]ensuremath{\mathsf{MDC}}$ is determined using instrument performance only Bold results are greater than the $\ensuremath{\mathsf{MDC}}$

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID:

F8H200272

Matrix:

WATER

			Total			Lab Sample ID
Parameter	Spike Amount	Result	Uncert. (2 g+/-)	MDC	% Yld % Rec	QC Control Limits
Gross Alpha/Beta EPA	900		pCi/L	900.0 MOD	F	8H210000-148C
Gross Alpha	49.4	52.8	6.0	1.3	107	(72 - 138)
	Batch #:	8234148		Analysis Date:	08/25/08	
TRITIUM (Distill) by	EPA 906.0 M	TOD	pCi/L	906.0 MOD	F	8H210000-199C
Tritium	4930	4980	490	280	101	(67 - 111)
	Batch #:	8234199		Analysis Date:	08/22/08	

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F8H200272

Matrix: WATER

Date Sampled: 08/14/08

Date Received: 08/20/08

			m 4 1			m-1-1		QC Sample	ID ID
Parameter	Spike Amount	Oncert.		Sample Result	Uncert. (2 o +/-)	%YLD	%REC	QC Control Limits	
Gross Alpha/Beta EPA 90	0		pCi/L	90	0.0 MOD		F	8H200272	-001
Gross Alpha	260	202	29		14.4	7.2		72	(44 - 150)
	Batch #:	8234148	An	alysis I	Date:	08/25/08			
TRITIUM (Distill) by EP	A 906.0 MO	D	pCi/L	90	6.0 MOD		F	8H200272	-001
Tritium	4930	4910	490		140	170		97	(27 - 150)
	Batch #:	8234199	An	alysis I	Date:	08/22/08			

NOTE (S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID:

F8H200272

Matrix:

WATER

						Total			Lab	Sample ID
arameter		Spike Amount		Result		% Yld	% Rec	QC Control Limits	Precision	
Total	Alpha	Radium	EPA 903.0 MOD	1	pCi/L	903.0	O MOD		F8H2	00000-375C
Radium	(total)	11.3	11.0		1.1	95	97	(71 - 125)	
		Spk 2	11.3	11.0		1.1	91	98	(71 - 125)	0.4 %RPD
			Batch #:	8233375	i i i		Analysi	s Date:	08/25/08	
Radium	228 b	y GFPC	EPA 904 MOD		pCi/L	904 1	MOD		F8H2	00000-373C
Radium	228		7.69	7,25		0.92	68	94	(61 - 139)	
		Spk 2	7.69	8.4		1.0	66	109	(61 - 139)	14 %RPD
			Batch #:	8233373			Analysi	s Date:	08/27/08	

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F8H200272

Matrix:

WATER

Date Sampled: 08/14/08

Date Received: 08/20/08

			Total			Total		QC Sample ID	
Parameter	SAMPL Resul		Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Uncert. (2 o+/~)	% Yld	Precis	lon
Gross Alpha/Beta EPA	900			pCi/L	900.0 MO	D	1	8H200272-0	01
Gross Alpha	14.4		7.2		6.5 U	6.9		75	%RPD
		Batch #:	8234148	(Sample)	8234148 (Duplicate)			
TRITIUM (Distill) by	EPA	906.0 MOI)	pCi/L	906.0 MO	D	1	8H200272-0	01
Tritium	140	U	170		130 U	170		10	*RPD
		Batch #:	8234199	(Sample)	8234199 (Duplicate)			

NOTE (S)

Data are incomplete without the case narrative. Calculations are performed before rounding to avoid round-off error in calculated results

Result is less than the sample detection limit.



SUBCONTRACT ORDER

TestAmerica Ontario CRH0590

SENDING LABORATORY:

TestAmerica Ontario 1014 E. Cooley Dr, Ste A

Colton, CA 92324 Phone: (909) 370-4667

Fax: (909) 370-1046

Project Manager: Melissa Cunningham

Client: Layne Christensen

RECEIVING LABORATORY:

TestAmerica St. Louis 13715 Rider Trail North Earth City, MO 63045 Phone:(314) 298-8566

Fax: xxx

Project Location: California

Receipt Temperature:_

Ice: Y / N

°C

Analysis	Units	Due	Expires	Interlab Price Su	rch Comment	ts
Sample ID: CRH0590-01	Water		Sampled	: 08/14/08 10:30		
Gross Alpha-O	pCi/L	08/27/08	08/14/09 10:30	\$50.00	0%	
Radium 226-0	pCi/L	08/27/08	08/14/09 10:30	\$120.00	0%	
Radium 228-O	pCi/L	08/27/08	08/14/09 10:30	\$180.00	0%	
Tritium-O	pCi/L	08/27/08	08/14/09 10:30	\$70.00	0%	
Containers Supplied:						
500 mL poly w/ Nitric Acid (AA)	500 mL poly v Acid (AB)	v/ Nitric	500 mL poly w/ h Acid (AC)	Nitric 500 mL Acid (A	poly w/ Nitric D)	500 mL poly w/ Nitric Acid (AE)
500 mL poly w/ Nitric	1 Liter Poly w Acid (AK)	/ Nitric	500 mL Glass (A	(O)		1 70 %

Unin fall 8/19/08

Date/Time

Received By Om Don

Date/Time

8.00.089.30 12 of 14

LOT# F8H200272

2852 Alton Ave LOT# F8H200272

X (944) X (858) X (480) X (702)	5					Magneslum Manganese Mercury Nickel Selenium Selenium Silver Soldum Thallium U Vanadium C Zinc	Ten. 747.6	1							Turnaround Tipse": (check one)	48 hours	"Surcharges may be applied for remalning hold time <48 hours	ty: Temp: 25 C
(949) 261-1022 FA (909) 370-4667 FA (858) 505-9596 FA (480) 785-0043 FA (702) 798-3620 FA	3 02 10-11/			4	S. C.N.	Altuninum Artimory Artimory Artimory Artenic Bartum Beryllium Beryllium Cadmium Calcium Chromium Copper Copper	OH:5,77					1			K			Sample Integrity:
7	1 27-1643	Kowich				TITLE ZZ AHALYEIS	X								Date/Time:	S-14-CB DaterTime:		
2852 Alton Avenue, Irvine, CA 92606 1014 East Cooley Drive, Sulla A, Colton, CA 92324 9484 Chesapeake Dr., Ste. 805, San Diego, CA 92123 9830 South 51st, Sulte B-120, Phoenix, AZ 85044 2520 East Sunset, #3, Las Vegas, NV 89120 N OF CUSTODY FORM	me. Hapsel Lake		Z		ar dechlor	Metals (Specify) General Minerals (see fee schedule) General Physical (see fee schedule) Inorganic Chemicals (see fee schedule)									N	July 1		
2852 Alton Ave (1014 East Cooley Drive, Sultry 9484 Chesapeake Dr., Ste. 805, 9830 South 51st, Sulte B-12, 2520 East Sunset, #3, VATER CHAIN OF CUSTODY FORM	P.O./Project Name: Aspec	Project Manager:	Compliance Sample: Yes	Yes (PWS ID required)	Samples acidifie	Endolhall 548.1 Diquat / Paraquat 549.2 Coliform, Total			1						Received by:	Received by Mark M.	드	
R CHAI			2337	tate's database?		Pesticides and PCBs 505 508.1 Chlorinsted Acids 515.3 Carbamates 531.1 Carbamates 547.1					1	+			Date/Time: 8-14-08 / 1200	Dakel - 14/6	Dale/Time:	
I'ICAI al Laboratory Sei Drinking V	Company	,	CA Zip: 92	390-6097 Data to st		Mumber of Containers Volatiles Reg. UnReg. 524.2 Semivolatiles Reg. UnReg. 525.2									~	ile f		
Del Mar Analytical Providing Quality Environmental Laboratory Services DRINKING WATE	Chustensan	IN AVE.	State:	Fax: (909) 390-6		belqms2 elsQ emfF	14 1030	1	1						Relinguished by:	Relinquished by:	Relinquished by:	Remarks:
Del ME Providing Quali	AYNE Cha	THE	47	833	& Signature:	Ö (aldsT xhaM ees) xidaM	-S-1 GW			1	1							
# F8H20027	Client Name:	Address: //00/	City: PORTGAL	Tel: (505) 350-2	Sampler(s) Name & Signature	Sample I.D	RYKEN-WEIL						1	1	Matrix Types DW - Drinking Water	SW - Surface Water RW - Raw Water (Source)	GW - Groundwater RW - Recreational Water	TW - Treated Water (Point of Entry)

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project.

From Rev. 3-27-03

By ment for services is due within 30 days from the date of the involce. Sample(s) will be disposed of after 30 days. All work is subject to Del Mar Analytical's terms and conditions unless previously agreed to in writing.

H

TESTAME		- 4	Lot #(s): <u></u>		stAmerica St. Lo
Client: TA (Official Coc/RFA No: Initiated By:	Condit	ion Upon Receip HOS90	Date:	9:30
Emp# 169316 01:32	PRIORITY (7. 7. 7.	**	Information Sample must be receriance does NOT affer	Multiple Packages Sample Temperature 1. 2. 3. 4. 5. ived at 4°C ± 2°C- If not, note coect the following: Metals-Liquid	6. 7. 8. 9. 10. Intents below. Temperature
1/7	for yes, "N" for no and "N/A" for not applicable): Are there custody seals present on			Are there custody seals p	
. Y(N)	the cooler? Do custody seals on cooler appear to	9.	Y N NA	Do custody seals on bott	les appear to be tampered
Y N MA	be tampered with? Were contents of cooler frisked after	10.	Y N WA	with? Was sample received wit	th proper pH'? (If not,
(Y) N	opening, but before unpacking? Sample received with Chain of	11.	(V) N	make note below) If N/A- Was pH taken b lab?	y original TestAmerica
Y) N N/A	Custody? Does the Chain of Custody match sample ID's on the container(s)?	12.	N N	Sample received in prope	er containers?
YW	Was sample received broken?	13.	Y N NA	Headspace in VOA or To Yes, note sample ID's below)	OX liquid samples? (If
. (Y) N	Is sample volume sufficient for analysis?	14.	YN	Was Internal COC/Work	share received?
Notes;					
	T-1		h-t-t		
Corrective Action: Client Contact ? Sample(s) proce Sample(s) on he	essed "as is"		ormed by:	7-11-08	

Project Management Review: Mental Management Review: Date:

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN LOT THE INTHA POR THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

14 of 14



August 28, 2008

TestAmerica Project Number: G8H200347

PO/Contract: CRH0590

Melissa Cunningham TestAmerica Analytical Testing 1014 E Cooley Drive, Suite A Colton, CA 92324

Dear Ms. Cunningham,

This report contains the analytical results for the sample received under chain of custody by TestAmerica on August 20, 2008. This sample is associated with your CRH0590 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4383.

Sincerely,

David R. Alltucker Project Manager

G8H200347

Table of Contents

TestAmerica West Sacramento Project Number G8H200347

Case Narrative

Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

WATER, 1613B, 2,3,7,8-TCDD (DW)

Sample: 1

Sample Data Sheet Method Blank Report Laboratory QC Reports

Case Narrative

TestAmerica West Sacramento Project Number G8H200347

WATER, 1613B, 2,3,7,8-TCDD (DW)

Sample: 1

The column performance standard mix CPSM 3136-16 CP0825 analyzed August, 25, 2008 at 15:33 exceeded the 25% valley resolution requirement for 2,3,7,8-TCDD on the DB-5 column analysis. The data was evaluated for impact. As the sample is non-detect for 2,3,7,8-TCDD there is no adverse impact from this deficiency.

There are no other anomalies associated with this project.





TestAmerica Laboratories West Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #	
Alaska	UST-055	New York*	11666	
Arizona	AZ0616	Oregon*	CA 200005	
Arkansas	04-067-0	Pennsylvania	68-1272	
California*	01119CA	South Carolina	87014002	
Colorado	NA	Texas	TX 270-2004A	
Connecticut	PH-0691	Utah*	QUAN1	
Florida*	E87570	Virginia	00178	
Georgia	960	Washington	C087	
Hawaii	NA	West Virginia	9930C, 334	
Kansas*	E10375	Wisconsin	998204680	
Louisiana*	01944	NFESC	NA	
Michigan	9947	USACE	NA	
Nevada	CA44	USDA Foreign Plant	37-82605	
New Jersey*	CA005	USDA Foreign Soil	S-46613	

^{*}NELAP accredited. A more detailed parameter list is available upon request. Updated 9/21/07

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G8H200347

WO# KVG6H Sample #

Client Sample ID CRH0590-01 Sampling Date 8/14/2008 10:30 AM Received Date 8/20/2008 09:15 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SUBCONTRACT ORDER

TestAmerica Ontario CRH0590

SENDING LABORATORY:

TestAmerica Ontario 1014 E. Cooley Dr, Ste A Colton, CA 92324

Phone: (909) 370-4667 Fax: (909) 370-1046

Project Manager: Melissa Cunningham

1 L Amber (AN)

Client: Layne Christensen

1 L Amber (AM)

RECEIVING LABORATORY:

TestAmerica West Sacramento

880 Riverside Parkway

West Sacramento, CA 95605

Phone :(916) 373-5600

Fax: (916) 372-7768

Project Location: California

Receipt Temperature: 2- °C

Ice: Y N

Analysis	Units	Due	Expires	Interlab Price Sur	ch Comments
Sample ID: CRH0590-01	Water		Sample	d: 08/14/08 10:30	
1613B - 2,3,7,8-TCDD CA	A D pg/l	08/27/08	08/14/09 10:3		%
Containers Supplied:					

Min Pollle 8/19/08 1550
Released By Date/Time

Received By

Date/Time

8/2013 - 1/50 Date/Time Pag

Page 1 8 of 15

Providing Quality Environmental Laboratory Services Del MarAnalytical

EAX (949) 261-1228 FAX (909) 370-1046 (480) 785-0043 (949) 261-1022 (858) 505-9596 702) 798-3620 (909) 370-4667 2852 Alton Avenue, Irvine, CA 92606 2520 East Sunset, #3, Las Vegas, NV 89120 1014 East Cooley Drive, Sulte A, Colton, CA 92324

FAX (858) 505-9689 FAX (480) 785-0851 • FAX (702) 798-3621 9484 Chesapeake Dr., Ste. 805, San Diego, CA 92123 9830 South 51st, Sulte B-120, Phoenix, AZ 85044

Sample Integrity: Temp: Turnaround Tirpe*: (check one) Surcharges may be applied for 7 day ☐ Manganese Magnesium ☐ Potassium ☐ Selenium ☐ Silver remaining hold time <48 hours 48 hours □ Vanadium TEMD: 24. Immediate C Mercury D Thallium □ Sodium ð □ Nickel O other: Ø Page 10-1 Normal vx □ Aluminum
□ Artimony
□ Arsenic
□ Barlum
□ Barlum
□ Boron
□ Cadmium
□ Calcium
□ Chromium
□ Copper 72 Hours 24 Hours a Intact: OH:5. □ Lead 07 Date/Time: Date Time: Date/Time W PWS ID#: 27-164 POE #: Yes Pradio 217 1.1.1 Samples acidified after dechlorination? P.O./Project Name: HARDER LAKE S 2 Col norganic Chemicals (see fee schedule) DRINKING WATER CHAIN OF CUSTODY FORM Seneral Physical (see fee schedule) VICTOR Compliance Sample: Yes General Minerals (see lee schedule) Yes (PWS ID required) Metals (Specify) Project Manager: deterotrophic Plate Count (HPC) Received in Lab by: LINE Fecal D Coliform, Total Received by: Received by: Siqual / Paraquat 549.2 1,848 lis/dobn= Clyphosate 547 390-6097 Data to state's database? 11200 1.152 safamadia Date/Time: Dafe/Time; Date/Time 14168 5.213 abioA betanhold 180-11-8 33 esticides and PCBs 505 \$ 508.1 \$ 92 EDB / DBCP / TCP 504.1 30 LANDROS Semivolatiles Reg.

UnReg.

525.2 Zip: Trihalomethanes Only 524.2 CA Volatiles Reg. ☐ UnReg. ☐ 524.2 Number of Containers State: ChristensEd 1030 ешП 17万 Relinquished by: Relinquished by Relinguished by Fax: (909) Remarks: Date Sampled 7 Trimorda Matrix (see Matrix Table) SE Sampler(s) Namé & Signature 350-2833 TW - Treated Water (Point of Entry) AYNE PONTALA Ś Sample I.D. RW - Raw Water (Source) 11001 RW - Recreational Water YKEN-WEIL DW - Drinking Water SW - Surface Water Client Name: GW - Groundwater Matrix Types Tel:/505 Address: City TestAmerica West Sacramento (916) 373 - 5600

Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days. All work is subject to Del Mar Analytical's terms and conditions unless previously agreed to in writing. On Ice: Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project



LOT RECEIPT CHECKLIST TestAmerica West Sacramento

CLIENT	THE Entario PM DA	LOG #	53702
LOT# (QUANTIMS I	D) 48 H 200347 QUOTE# 7402	LOCATION	w7B
DATE RECEIVED	S/2 3 TIME RECEIVED 0915	Initials	Date & /20/8
DELIVERED BY	☐ CA OVERNIGHT ☐ CLIENT ☐ AIRBORNE ☐ GOLDENSTATE ☐ DHL ☐ UPS ☐ BAX GLOBAL ☐ GO-GETTER ☐ TAL COURIER ☐ VALLEY LOGISTICS ☐ MORGAN HIS ☐ OTHER		
	ATUS INTACT BROKEN IN/A	-	
CUSTODY SEAL #(S	INER(S) TAL CLIENT N/A		
	ORD (IN °C) IR 4 5 TO OTHER		
COC #(S)	N/Pr		
TEMPERATURE BLA SAMPLE TEMPERA Observed:		2	
COLLECTOR'S NAM	E: Verified from COC Not on COC		
pH MEASURED	☐ YES ☐ ANOMALY ☑ N/A		
LABELED BY			
LABELS CHECKED I	BYNA		
SHORT HOLD TEST	NOTIFICATION SAMPLE RECEIVING WETCHEM N/A VOA-ENCORES N/A		
☐ METALS NOTIFIE	ED OF FILTER/PRESERVE VIA VERBAL & EMAIL N/A		
COMPLETE SHIP	MENT RECEIVED IN GOOD CONDITION WITH N/A EMPERATURES, CONTAINERS, PRESERVATIVES		
APPROPRIATE T		W.	. /
APPROPRIATE T	☐ TEMPERATURE EXCEEDED (2 °C − 6 °C) 1 N/A	-	

^{*1} Acceptable temperature range for State of Wisconsin samples is $\!\leq\!4^{\circ}C.$

TestAmerica West Sacramento TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID:

984200847

VOA*	1/					/	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOAh*	/_	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	/	/	/	/	/	/	/	1	1/	1	1	1	1/	1/	1/	/	1	/	/	
AGB	2				1/															
AGBs														102						
250AGB																				
250AGBs																				
250AGBn													1							
500AGB																1				
AGJ																				
500AGJ																				
250AGJ							1									1				
125AGJ									Jin										1	-
CGJ					1															
500CGJ																			-	-
250CGJ											1						<u> </u>			
125CGJ						-											1			
PJ										1										
PJn								-				1	1			-				-
500PJ								1			1			1	F*					
500PJn									-											
500PJna										1										
500PJzn/na	H T (1									-	
250PJ						151														
250PJn	7.5																			
250PJna				-																
250PJzn/na										1	1									-
Acetate Tube												-								
"CT																				
Encore															- '''					-
Folder/filter																		7		
PUF								170									-			
Petri/Filter								11												
KAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	10	10	20

Number of VOAs with air bubbles present / total number of VOA's

QA-185 5/05 EM

Page 3

WATER, 1613B, 2,3,7,8-TCDD DW

TestAmerica Ontario

Client Sample ID: CRH0590-01

Trace Level Organic Compounds

Lot-Sample #...: G8H200347-001 Work Order #...: KVG6H1AA Matrix..... WATER

Date Sampled...: 08/14/08 Date Received..: 08/20/08
Prep Date....: 08/21/08 Analysis Date..: 08/25/08

Prep Batch #...: 8235233

Dilution Factor: 1

QC DATA ASSOCIATION SUMMARY

G8H200347

Sample Preparation and Analysis Control Numbers

		ANALYTICAL	LEACH	PREP	
SAMPLE#	MATRIX	METHOD	BATCH #	BATCH #	MS RUN#
001	WATER	EPA-5 1613B-Tetra		8235233	

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: G8H200347 Work Order #...: KVLNK1AA Matrix.....: WATER

MB Lot-Sample #: G8H220000-233

Prep Batch #...: 8235233

Analysis Date..: 08/25/08

Dilution Factor: 1

INTERNAL STANDARDS

13C-2,3,7,8-TCDD

DETECTION

 PARAMETER
 RESULT
 LIMIT
 UNITS
 METHOD

 2,3,7,8-TCDD
 ND
 5.0
 pg/L
 EPA-5 1613B-Tetra

PERCENT RECOVERY
RECOVERY
61 (25 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: G8H200347 Work Order #...: KVLNK1AC Matrix..... WATER

LCS Lot-Sample#: G8H220000-233

Prep Date....: 08/21/08 Analysis Date..: 08/25/08

Prep Batch #...: 8235233

Dilution Factor: 1

PERCENT RECOVERY

 PARAMETER
 RECOVERY
 LIMITS
 METHOD

 2,3,7,8-TCDD
 89
 (73 - 146)
 EPA-5 1613B-Tetras

PERCENT RECOVERY
INTERNAL STANDARD RECOVERY LIMITS

13C-2,3,7,8-TCDD 65 (25 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: G8H200347 Work Order #...: KVLNK1AC Matrix..... WATER

LCS Lot-Sample#: G8H220000-233

Prep Date....: 08/21/08 Analysis Date..: 08/25/08

Prep Batch #...: 8235233

Dilution Factor: 1

 SPIKE
 MEASURED
 PERCENT

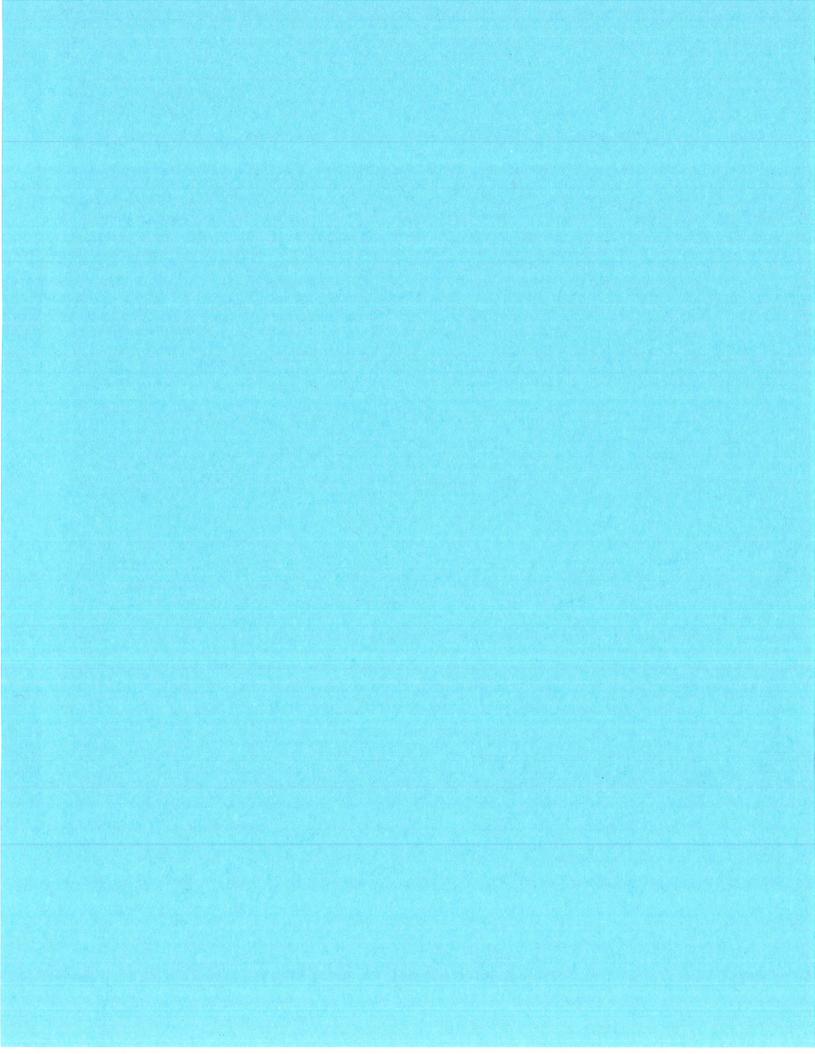
 PARAMETER
 AMOUNT
 AMOUNT
 UNITS
 RECOVERY
 METHOD

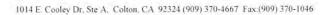
 2,3,7,8-TCDD
 200
 177
 pg/L
 89
 EPA-5 1613B-T

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters







LABORATORY REPORT

Prepared For: Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project: Title 22 Testing

Title 22 Testing

Sampled: 08/25/08 Received: 08/25/08 Issued: 10/07/08 07:42

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody. I page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 4°C, on ice and with chain of custody documentation,

HOLDING TIMES: Not all holding times were met. Results were qualified where the sample analysis did not occur within

method specified holding time requirements.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID CLIENT ID MATRIX
CRH0933-01 Ryken-Well-S-2 Water

Reviewed By:

Molissa Cominghan

TestAmerica Ontario

Melissa Cunningham Project Manager



1014 E. Cooley Dr., Ste A., Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing

Sampled: 08/25/08 Report Number: CRH0933 Received: 08/25/08

Attention: Mike Haslam

11001 Etiwanda Avenue

Layne Christensen

Fontana, CA 92337

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-Well-S-2 -	Water)							
Reporting Units: ug/l								
Benzene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
Bromodichloromethane	EPA 524.2	C8I0433	1.0	ND	1	9/4/2008	9/5/2008	
Bromoform	EPA 524.2	C8I0433	1.0	ND	1	9/4/2008	9/5/2008	
Carbon tetrachloride	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
Chlorobenzene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
Chloroform	EPA 524.2	C8I0433	1.0	ND	1	9/4/2008	9/5/2008	
Dibromochloromethane	EPA 524.2	C8I0433	1.0	ND	1	9/4/2008	9/5/2008	
1,2-Dichlorobenzene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
1,4-Dichlorobenzene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
1,1-Dichloroethane	EPA 524.2	C8I0433	0.50	ND	I	9/4/2008	9/5/2008	
1,2-Dichloroethane	EPA 524.2	C810433	0.50	ND	I	9/4/2008	9/5/2008	
1.1-Dichloroethene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
cis-1,2-Dichloroethene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
trans-1,2-Dichloroethene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
1,2-Dichloropropane	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
cis-1,3-Dichloropropene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
trans-1,3-Dichloropropene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
1,3-Dichloropropene, Total	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
Ethylbenzene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
Methylene chloride	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
Styrene	EPA 524.2	C810433	0.50	ND	1	9/4/2008	9/5/2008	
1.1,2,2-Tetrachloroethane	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
Tetrachloroethene	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
Toluene	EPA 524.2	C810433	0.50	ND	1	9/4/2008	9/5/2008	
1.2.4-Trichlorobenzene	EPA 524.2	C810433	0.50	ND	1	9/4/2008	9/5/2008	
1,1,1-Trichloroethane	EPA 524.2	C810433	0.50	ND	1	9/4/2008	9/5/2008	
1,1,2-Trichloroethane	EPA 524.2	C810433	0.50	ND	1	9/4/2008	9/5/2008	
Trichloroethene	EPA 524.2	C810433	0.50	ND	1	9/4/2008	9/5/2008	
Trichlorofluoromethane (Freon 11)	EPA 524.2	C810433	5.0	ND	1	9/4/2008	9/5/2008	
Trichlorotrifluoroethane (Freon 113)	EPA 524.2	C8I0433	10	ND	1	9/4/2008	9/5/2008	
Vinyl chloride	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
m.p-Xylenes	EPA 524.2	C8I0433	0.50	ND	1	9/4/2008	9/5/2008	
o-Xylene	EPA 524.2	C810433	0.50	ND	1	9/4/2008	9/5/2008	
Xylenes, Total	EPA 524.2	C810433	1.0	ND	1	9/4/2008	9/5/2008	
Methyl-tert-butyl Ether (MTBE)	EPA 524.2	C8I0433	3.0	ND	1	9/4/2008	9/5/2008	
Trihalomethanes, Total	EPA 524.2	C810433	1.0	<4.0	1	9/4/2008	9/5/2008	
Surrogate: 4-Bromofluorobenzene (70-130%)				77 %				

Surrogate: 4-Bromofluorobenzene (70-130%)

94%

Surrogate: 1,2-Dichlorobenzene-d4 (70-130%)

TestAmerica Ontario

Melissa Cunningham Project Manager



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Sampled: 08/25/08 Report Number: CRH0933 Received: 08/25/08

CDHS SRL 524 MODIFIED METHOD FOR 1,2,3-TRICHLOROPROPANE PT/GCMS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-Well	I-S-2 - Water)							
Reporting Units: ng/L								
1,2,3-Trichloropropane (123-TCP)	SRL 524M-123TCP	C8H2604	5.0	ND	1	8/26/2008	8/26/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

Attention: Mike Haslam

Fontana, CA 92337

EDB AND DBCP IN WATER BY GC/ECD (EPA 504.1)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01RE2 (Ryken-We	ell-S-2 - Water)							
Reporting Units: ug/l								
1,2-Dibromoethane (EDB)	EPA 504.1	C810830	0.020	ND	0.994	9/8/2008	9/8/2008	
1.2-Dibromo-3-chloropropane	EPA 504.1	C810830	0.010	ND	0.994	9/8/2008	9/8/2008	
Surrogate: 4-Bromofluorobenzene (65-154	%)			11400%				Z2



Layne Christensen

Fontana, CA 92337

11001 Etiwanda Avenue

1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing Sampled: 08/25/08

Report Number: CRH0933 Received: 08/25/08

Attention: Mike Haslam ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

		Reporting	Sample	Dilution	Date	Date	Data
Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
ell-S-2 - Water)							
EPA 525,2	C8I0210	0.50	ND	1	9/2/2008	9/3/2008	
EPA 525.2	C8I0210	0.10	ND	1	9/2/2008	9/3/2008	
EPA 525.2	C8I0210	5.0	ND	1	9/2/2008	9/3/2008	
EPA 525.2	C8I0210	3.0	ND	1	9/2/2008	9/3/2008	
EPA 525.2	C8I0210	0.50	ND	1	9/2/2008	9/3/2008	
EPA 525.2	C810210	1.0	ND	-1	9/2/2008	9/3/2008	L
EPA 525.2	C8I0210	2.0	ND	1	9/2/2008	9/3/2008	
EPA 525.2	C8I0210	1.0	ND	1	9/2/2008	9/3/2008	
EPA 525.2	C8I0210	1.0	ND	1	9/2/2008	9/3/2008	
70-130%)			97%				
			114%				
			99%				
	EPA 525.2 EPA 525.2 EPA 525.2 EPA 525.2 EPA 525.2 EPA 525.2 EPA 525.2	EPA 525.2 C810210	Method Batch Limit EPA 525.2 C8I0210 0.50 EPA 525.2 C8I0210 0.10 EPA 525.2 C8I0210 5.0 EPA 525.2 C8I0210 3.0 EPA 525.2 C8I0210 0.50 EPA 525.2 C8I0210 0.50 EPA 525.2 C8I0210 1.0	Method Batch Limit Result ell-S-2 - Water) C810210 0.50 ND EPA 525.2 C810210 0.10 ND EPA 525.2 C810210 5.0 ND EPA 525.2 C810210 3.0 ND EPA 525.2 C810210 0.50 ND EPA 525.2 C810210 1.0 ND EPA 525.2 C810210 2.0 ND EPA 525.2 C810210 1.0 ND EPA 525.2 C810210 1.0 ND FO-130%) 97 % 114 %	Method Batch Limit Result Factor ell-S-2 - Water) EPA 525.2 C810210 0.50 ND 1 EPA 525.2 C810210 0.10 ND 1 EPA 525.2 C810210 5.0 ND 1 EPA 525.2 C810210 3.0 ND 1 EPA 525.2 C810210 0.50 ND 1 EPA 525.2 C810210 1.0 ND 1 EPA 525.2 C810210 2.0 ND 1 EPA 525.2 C810210 1.0 ND 1 EPA 525.2 C810210 1.0 ND 1 FO-130%) 97 % 114 %	Method Batch Limit Result Factor Extracted ell-S-2 - Water) EPA 525.2 C810210 0.50 ND 1 9/2/2008 EPA 525.2 C810210 0.10 ND 1 9/2/2008 EPA 525.2 C810210 5.0 ND 1 9/2/2008 EPA 525.2 C810210 3.0 ND 1 9/2/2008 EPA 525.2 C810210 0.50 ND 1 9/2/2008 EPA 525.2 C810210 1.0 ND 1 9/2/2008 EPA 525.2 C810210 2.0 ND 1 9/2/2008 EPA 525.2 C810210 1.0 ND 1<	Method Batch Limit Result Factor Extracted Analyzed ell-S-2 - Water) EPA 525.2 C810210 0.50 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 0.10 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 5.0 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 3.0 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 0.50 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 1.0 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 2.0 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 1.0 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 1.0 ND 1 9/2/2008 9/3/2008 EPA 525.2 C810210 1.0 ND 1 9/2/2008 9/3/2008



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing

Sampled: 08/25/08 Report Number: CRH0933 Received: 08/25/08

Fontana, CA 92337 Attention: Mike Haslam

11001 Etiwanda Avenue

Layne Christensen

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0933-01 (Ryken-Well-S-	-2 - Water)							
Reporting Units: ug/l								
Alachlor	EPA 505	C8H2720	1.0	ND	0.955	8/27/2008	8/28/2008	C, L
Endrin	EPA 505	C8H2720	0.10	ND	0.955	8/27/2008	8/28/2008	C, L
Heptachlor	EPA 505	C8H2720	0.010	ND	0.955	8/27/2008	8/28/2008	C, L
Heptachlor epoxide	EPA 505	C8H2720	0.010	ND	0.955	8/27/2008	8/28/2008	C, L
Lindane (gamma-BHC)	EPA 505	C8H2720	0.20	ND	0.955	8/27/2008	8/28/2008	C, L
Methoxychlor	EPA 505	C8H2720	10	ND	0.955	8/27/2008	8/28/2008	C, L
Chlordane	EPA 505	C8H2720	0.10	ND	0.955	8/27/2008	8/28/2008	
Toxaphene	EPA 505	C8H2720	1.0	ND	0.955	8/27/2008	8/28/2008	
Aroclor 1016	EPA 505	C8H2720	0.26	ND	0.955	8/27/2008	8/28/2008	
Aroclor 1221	EPA 505	C8H2720	0.19	ND	0.955	8/27/2008	8/28/2008	
Aroclor 1232	EPA 505	C8H2720	0.23	ND	0.955	8/27/2008	8/28/2008	
Aroclor 1242	EPA 505	C8H2720	0.26	ND	0.955	8/27/2008	8/28/2008	
Aroclor 1248	EPA 505	C8H2720	0.30	ND	0.955	8/27/2008	8/28/2008	
Aroclor 1254	EPA 505	C8H2720	0.33	ND	0.955	8/27/2008	8/28/2008	
Aroclor 1260	EPA 505	C8H2720	0.36	ND	0.955	8/27/2008	8/28/2008	
PCBs as Decachlorobiphenyl (DCB)	EPA 505	C8H2720	0.50	ND	0.955	8/27/2008	8/28/2008	



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam

Layne Christensen

CHLORINATED ACIDS (EPA 515.4)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0933-01 (Ryken-W	'ell-S-2 - Water)							
Reporting Units: ug/l								
Bentazon	EPA 515.4	C8H2801	2.0	ND	1	8/28/2008	8/29/2008	C, L
2,4-D	EPA 515.4	C8H2801	10	ND	1	8/28/2008	8/29/2008	C, L
Dalapon	EPA 515.4	C8H2801	10	ND	1	8/28/2008	8/29/2008	
Dacthal acid metabolites	EPA 515.4	C8H2801	1.0	ND	1	8/28/2008	8/29/2008	
Dicamba	EPA 515.4	C8H2801	1.5	ND	1	8/28/2008	8/29/2008	
Dinoseb	EPA 515.4	C8H2801	2.0	ND	-1	8/28/2008	8/29/2008	
Pentachlorophenol	EPA 515.4	C8H2801	0.20	ND	1	8/28/2008	8/29/2008	
Picloram	EPA 515.4	C8H2801	1.0	ND	1	8/28/2008	8/29/2008	C, L
2,4,5-TP (Silvex)	EPA 515.4	C8H2801	1.0	ND	1	8/28/2008	8/29/2008	
Surrogate: 2,4-Dichlorophenylacetic	acid (70-130%)			111%				



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Title 22 Testing

Title 22 Testing

Sampled: 08/25/08 Report Number: CRH0933 Received: 08/25/08

Attention: Mike Haslam

11001 Etiwanda Avenue

Layne Christensen

Fontana, CA 92337

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0933-01 (Ryken-W	Vell-S-2 - Water)							
Reporting Units: ug/l								
Aldicarb Sulfoxide	EPA 531 1	C8H2618	3.0	ND	1	8/26/2008	8/27/2008	
Aldicarb Sulfone	EPA 531.1	C8H2618	2.0	ND	1	8/26/2008	8/27/2008	
Oxamyl	EPA 531.1	C8H2618	20	ND	1	8/26/2008	8/27/2008	
Methomyl	EPA 531.1	C8H2618	2.0	ND	1	8/26/2008	8/27/2008	
3-Hydroxycarbofuran	EPA 531.1	C8H2618	3.0	ND	1	8/26/2008	8/27/2008	
Aldicarb	EPA 531.1	C8H2618	3.0	ND	1	8/26/2008	8/27/2008	
Carbofuran	EPA 531.1	C8H2618	5.0	ND	1	8/26/2008	8/27/2008	
Carbaryl	EPA 531.1	C8H2618	5.0	ND	1	8/26/2008	8/27/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Attention: Mike Haslam

Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

GLYPHOSATE (EPA 547)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0933-01 (Ryken-We	ell-S-2 - Water)							
Reporting Units: ug/l								
Glyphosate	EPA 547	C8H2904	25	ND	1	8/30/2008	8/30/2008	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

DIQUAT/PARAQUAT (EPA 549.2)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0933-01 (Ryken-We	ell-S-2 - Water)							
Reporting Units: ug/l								
Diquat	EPA 549.2	C8H2710	4.0	ND	1	8/27/2008	8/27/2008	
Paraquat	EPA 549.2	C8H2710	20	ND	1	8/27/2008	8/27/2008	



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax; (909) 370-1046.

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-Well-	S-2 - Water)							рН
Reporting Units: Color Units								
Color	SM2120B	C8H2619	1	ND	I	8/26/2008	8/26/2008	
Sample ID: CRH0933-01 (Ryken-Well-	S-2 - Water)							
Reporting Units: NTU Turbidity	EPA 180.1	C8H2626	0.10	ND	1	8/26/2008	8/26/2008	
Sample ID: CRH0933-01 (Ryken-Well-	S-2 - Water)							
Reporting Units: T.O.N.								
Odor	SM2150B	C8H2616	1.0	ND	1	8/26/2008	8/26/2008	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

FIELD TESTS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-Wel Reporting Units: °C	I-S-2 - Water)							
Temperature	Field Test	C8H2903	1.0	24	1	8/25/2008	8/29/2008	FT
Sample ID: CRH0933-01 (Ryken-Wel	I-S-2 - Water)							
Reporting Units: pH Units pH	Field Test	C8H2903	NA	6.4	1	8/25/2008	8/29/2008	FT



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METALS

		MI	LIALS					
Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
		Date	2,1110,1	resun		Dittitution	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	×
Sample ID: CRH0933-01 (Ryken-W	ell-5-2 - Water)							
Reporting Units: mg/l	SM2340B	10.11.01	0.22	310	7	0/20/2000	0/1/2008	
Hardness (as CaCO3)	EPA 200.7	[CALC]	0.33		1	8/29/2008	9/4/2008	D. I. MILL
Calcium	EPA 200.7 EPA 200.7	8H29097	0.10	100	1	8/29/2008	9/3/2008	B-1, MHA
Iron		8H29097	0.040	ND	1	8/29/2008	9/3/2008	X111.X
Magnesium	EPA 200.7	8H29097	0.020	15	1	8/29/2008	9/4/2008	MHA
Potassium	EPA 200.7	8H29097	0.50	8.2	1	8/29/2008	9/3/2008	SHILL
Sodium	EPA 200.7	8H29097	0.50	370	1	8/29/2008	9/3/2008	MHA
Mercury	EPA 245.1	8H26070	0.00020	ND	1	8/26/2008	8/26/2008	
Sample ID: CRH0933-01 (Ryken-W	ell-S-2 - Water)							
Reporting Units: pCi/L								
Uranium pCi/L (CA)	EPA 200.8	8H26081	1.0	5.7	1	8/26/2008	8/27/2008	
Sample ID: CRH0933-01 (Ryken-W	ell-S-2 - Water)							
Reporting Units: ug/I								
Aluminum	EPA 200.8	8H26081	10	ND	- 1	8/26/2008	8/27/2008	
Antimony	EPA 200.8	8H26081	2.0	ND	1	8/26/2008	8/27/2008	
Arsenic	EPA 200.8	8H26081	1.0	9.7	1	8/26/2008	8/27/2008	
Barium	EPA 200.8	8H26081	1.0	34	1	8/26/2008	8/27/2008	
Beryllium	EPA 200.8	8H26081	0.50	ND	-1	8/26/2008	8/27/2008	
Cadmium	EPA 200.8	8H26081	1.0	ND	1	8/26/2008	8/27/2008	
Chromium	EPA 200.8	8H26081	2.0	4.8	1	8/26/2008	8/27/2008	
Copper	EPA 200.8	8H26081	2.0	2.2	1	8/26/2008	8/27/2008	
Lead	EPA 200.8	8H26081	1.0	ND	- 1	8/26/2008	8/27/2008	
Manganese	EPA 200.8	8H26081	1.0	ND	1	8/26/2008	8/27/2008	
Nickel	EPA 200.8	8H26081	2.0	ND	1	8/26/2008	8/27/2008	
Selenium	EPA 200.8	81126081	2.0	5.0	1	8/26/2008	8/27/2008	
Silver	EPA 200.8	8H26081	1.0	ND	1	8/26/2008	8/27/2008	
Thallium	EPA 200.8	8H26081	1.0	ND	1	8/26/2008	8/27/2008	C
Zinc	EPA 200.8	8H26081	20	ND	1	8/26/2008	8/27/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

Attention: Mike Haslam

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifie
Sample ID: CRH0933-01 (Ryken-Well-	-S-2 - Water)							
Reporting Units: mg/l	Section of the sectio							
Chromium VI	EPA 218.6	8H25092	0.0010	0.0047	1	8/25/2008	8/25/2008	
Alkalinity as CaCO3	SM2320B	8H26076	2.0	120	1	8/26/2008	8/26/2008	
Alkalinity as CaCO3	SM2320B	8H26076	2.0	120	1	8/26/2008	8/26/2008	
Bicarbonate Alkalinity as CaCO3	SM2320B	8H26076	2.0	120	1	8/26/2008	8/26/2008	
Carbonate Alkalinity as CaCO3	SM2320B	8H26076	2.0	ND	1	8/26/2008	8/26/2008	
Hydroxide Alkalinity as CaCO3	SM2320B	8H26076	2.0	ND	4	8/26/2008	8/26/2008	
Chloride	EPA 300.0	8H25106	10	580	20	8/25/2008	8/26/2008	
Total Cyanide	SM4500-CN-C,E	8H27101	0.025	ND	1	8/27/2008	8/27/2008	
Fluoride	SM 4500-F-C	8H27039	0.10	0.56	1	8/27/2008	8/27/2008	
Nitrate-N	EPA 300 0	8H25106	0.15	1.6	1	8/25/2008	8/26/2008	
Nitrate-NO3	EPA 300.0	8H25106	0.50	7.0	1	8/25/2008	8/26/2008	
Nitrite-N	EPA 300.0	8H25106	3.0	ND	20	8/25/2008	8/26/2008	RL1
Nitrate/Nitrite-N	EPA 300.0	8H25106	0.26	1.6	1	8/25/2008	8/26/2008	
Sulfate	EPA 300.0	8H25106	10	260	20	8/25/2008	8/26/2008	
Surfactants (MBAS)	SM5540-C	8H26127	0.10	ND	1	8/26/2008	8/27/2008	
Total Dissolved Solids	SM2540C	8H27049	10	1500	1	8/27/2008	8/27/2008	
Sample ID: CRH0933-01 (Ryken-Well-	-S-2 - Water)							
Reporting Units: pH Units								
рН	EPA 150.1	8H26061	0.100	7.75	1	8/26/2008	8/26/2008	HFT
Sample ID: CRH0933-01 (Ryken-Well-	-S-2 - Water)							
Reporting Units: umhos/cm@25C								
Specific Conductance	SM2510B	8H27054	1.0	2400	1	8/27/2008	8/27/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

AGGRESSIVE INDEX

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-Well-	-S-2 - Water)							
Reporting Units: SI Units Aggressive Index	Calc	8104124	0.010	12	t	9/4/2008	9/4/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Attention: Mike Haslam

Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

EPA-5 1613B-Tetras

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRH0933-01 (Ryken-Well-	S-2 - Water)							
Reporting Units: pg/L								
2,3,7,8-TCDD	EPA-5 1613B-Tetras	8242295	5.0	ND	1	8/29/2008	9/3/2008	
Surrogate: 13C-2,3,7,8-TCDD (25-141%))			50 %				



1014 E. Cooley Dr., Ste A., Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

EPA 900.0 MOD

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-W	Vell-S-2 - Water)							
Reporting Units: pCi/L								
Gross Alpha	EPA 900.0 MOD	8246173	3	2.1	1	9/2/2008	9/7/2008	U



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Attention: Mike Haslam

Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

EPA 903.0 MOD

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-V	Vell-S-2 - Water)							
Reporting Units: pCi/L								
Radium (total)	EPA 903.0 MOD	8242349	1	0.19	1	8/29/2008	9/10/2008	U



1014 E. Cooley Dr., Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

EPA 904 MOD

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-W	ell-S-2 - Water)							
Reporting Units: pCi/L								
Radium 228	EPA 904 MOD	8242348	1	0.14	1	8/29/2008	9/10/2008	U



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

EPA 906.0 MOD

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-W	ell-S-2 - Water)							
Reporting Units: pCi/L								
Tritium	EPA 906.0 MOD	8246079	500	110	1	9/2/2008	9/3/2008	U



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

Project ID: Title 22 Testing

11001 Etiwanda Avenue

Title 22 Testing

Fontana, CA 92337 Attention: Mike Haslam Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

EPA 100.2

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRH0933-01 (Ryken-We	ell-S-2 - Water)							
Reporting Units: MFL								
Asbestos by TEM	EPA 100.2	NA	0.2	ND	I	8/26/2008	9/2/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: Title 22 Testing 11001 Etiwanda Avenue Title 22 Testing

Title 22 Testing Sampled: 08/25/08
Report Number: CRH0933 Received: 08/25/08

Fontana, CA 92337 Attention: Mike Haslam

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Ryken-Well-S-2 (CRH093	33-01) - Water				
EPA 150.1	0	08/25/2008 08:30	08/25/2008 11:46	08/26/2008 09:40	08/26/2008 09:40
EPA 180.1	2	08/25/2008 08:30	08/25/2008 11:46	08/26/2008 13:15	08/26/2008 13:15
EPA 218.6	1	08/25/2008 08:30	08/25/2008 11:46	08/25/2008 22:12	08/25/2008 22:17
EPA 300.0	2	08/25/2008 08:30	08/25/2008 11:46	08/25/2008 22:15	08/26/2008 05:48
Nitrite-N				08/25/2008 22:15	08/26/2008 06:01
SM2120B	2	08/25/2008 08:30	08/25/2008 11:46	08/26/2008 10:35	08/26/2008 10:35
SM2150B	1	08/25/2008 08:30	08/25/2008 11:46	08/26/2008 09:50	08/26/2008 09:50
SM5540-C	.2	08/25/2008 08:30	08/25/2008 11:46	08/26/2008 19:02	08/27/2008 00:47



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

		Reporting	40.00	Spike	Source		%REC	1	RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8I0433 Extracted: 09/04/08										
Blank Analyzed: 09/05/2008 (C8I043	3-BLK1)									
Benzene	ND	0.50	ug/l							
Bromodichloromethane	ND	1.0	ug/l							
Bromoform	ND	1.0	ug/l							
Carbon tetrachloride	ND	0.50	ug/l							
Chlorobenzene	ND	0.50	ug/l							
Chloroform	ND	1.0	ug/I							
Dibromochloromethane	ND	1.0	ug/l							
1.2-Dichlorobenzene	ND	0.50	ug/l							
1.4-Dichlorobenzene	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
eis-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/l							
1,2-Dichloropropane	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/l							
1,3-Dichloropropene, Total	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Methylene chloride	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/l							
Toluene	ND	0.50	ug/l							
1.2,4-Trichlorobenzene	ND	0.50	ug/l							
1.1.1-Trichloroethane	ND	0.50	ug/l							
1.1.2-Trichloroethane	ND	0.50	ug/l							
Trichloroethene	ND	0.50	ug/l							
Trichlorofluoromethane (Freon 11)	ND	5.0	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	10	ug/l							
Vinyl chloride	ND	0.50	ug/l							
m.p-Xylenes	ND	0.50	ug/l							
o-Xylene	ND	0.50	ug/l							
Xylenes, Total	ND	1.0	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	3.0	ug/l							
Trihalomethanes, Total	<1.0	1.0	ug/l							

TestAmerica Ontario



1014 E. Cooley Dr., Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

	* * *					%REC		RPD	Data
Analyte Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8I0433 Extracted: 09/04/08									
Blank Analyzed: 09/05/2008 (C8I0433-BLK1)									
Surrogate: 4-Bromofluorobenzene 3.98		ug/l	5.00		80	70-130			
Surrogate: 1.2-Dichlorobenzene-d4 4.24		ug/l	5.00		85	70-130			
LCS Analyzed: 09/04/2008 (C8I0433-BS1)									
Benzene 5.79	0.50	ug/l	5 00		116	70-130			
Bromodichloromethane 4.96	1.0	ug/l	5.00		99	70-130			
Bromoform 4.54	10	ug/l	5.00		91	70-130			
Carbon tetrachloride 5.98	0.50	ug/l	5.00		120	70-130			
Chlorobenzene 5.71	0.50	ug/l	5.00		114	70-130			
Chloroform 5.17	1.0	ug/l	5.00		103	70-130			
Dibromochloromethane 4.81	1.0	ug/l	5.00		96	70-130			
1,2-Dichlorobenzene 5.37	0.50	ug/l	5.00		107	70-130			
1,4-Dichlorobenzene 5.59	0.50	ug/l	5.00		112	70-130			
1.1-Dichloroethane 5.17	0.50	ug/I	5.00		103	70-130			
1,2-Dichloroethane 4.83	0.50	ug/l	5.00		97	70-130			
1.1-Dichloroethene 6.31	0.50	ug/I	5.00		126	70-130			
cis-1,2-Dichloroethene 5.74	-0.50	ug/I	5.00		115	70-130			
trans-1,2-Dichloroethene 6.38	0.50	ug/l	5.00		128	70-130			
1.2-Dichloropropane 5.31	0.50	ug/l	5.00		106	70-130			
cis-1,3-Dichloropropene 5.04	0.50	ug/l	5.00		101	70-130			
trans-1,3-Dichloropropene 4.78	0.50	ug/l	5.00		96	70-130			
1,3-Dichloropropene, Total 9.82	0.50	ug/l	10.0		98	70-130			
Ethylbenzene 5,28	0.50	ug/l	5.00		106	70-130			
Methylene chloride 5.03	0.50	ug/L	5.00		101	70-130			
Styrene 4.97	0.50	ug/L	5.00		99	70-130			
1,1,2,2-Tetrachloroethane 5.18	0.50	ug/l	5.00		104	70-130			
Tetrachloroethene 4.61	0.50	ug/l	5.00		92	70-130			
Toluene 5.87	0.50	ug/l	5.00		117	70-130			
1,2,4-Trichlorobenzene 6.18	0.50	ug/l	5.00		124	70-130			
1,1,1-Trichloroethane 6.03	0.50	ug/l	5.00		121	70-130			
1,1,2-Trichloroethane 4,96	0.50	ug/l	5.00		-99	70-130			
Trichloroethene 5 66	0.50	ug/l	5.00		113	70-130			
Trichlorofluoromethane (Freon 11) 6.22	5,0	ug/l	5.00		124	70-130			
Trichlorotrifluoroethane (Freon 113) 6.18	10	ug/l	5.00		124	70-130			
Vinyl chloride 6.48	0.50	ug/I	5,00		130	70-130			
m,p-Xylenes 10.8	0.50	ug/I	10.0		108	70-130			

TestAmerica Ontario



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8I0433 Extracted: 09/04/08	3									
LCS Analyzed: 09/04/2008 (C8I0433	3-BS1)									
o-Xylene	5.71	0.50	ug/l	5.00		114	70-130			
Xylenes, Total	16.6	1.0	ug/l	15.0		110	70-130			
Methyl-tert-butyl Ether (MTBE)	8.85	3.0	ug/I	10.0		88	70-130			
Trihalomethanes, Total	19.5	1.0	ug/l	20.0		97	70-130			
Surrogate: 4-Bromofluorobenzene	4.64		ug/l	5.00		93	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	4.68		ug/l	5.00		94	70-130			
Matrix Spike Analyzed: 09/05/2008	(C810433-MS1)				Source: C	RH1142-	01RE1			
Benzene	4.41	0.50	ug/l	5.00	ND	88	70-125			
Bromodichloromethane	27.0	1.0	ug/l	5.00	25.6	27	40-150			MHA
Bromoform	5.41	1.0	ug/l	5.00	2.42	60	45-120			
Carbon tetrachloride	4.81	0.50	ug/l	5.00	0.220	92	60-140			
Chlorobenzene	4.24	0.50	ug/l	5.00	ND	85	60-125			
Chloroform	29.9	1.0	ug/l	5.00	31.4	-31	55-130			MHA
Dibromochloromethane	21.1	1.0	ug/l	5.00	17.6	69	50-130			
1,2-Dichlorobenzene	3.93	0.50	ug/l	5,00	ND	79	60-130			
1,4-Dichlorobenzene	4.14	0.50	ug/l	5.00	ND	83	60-135			
1,1-Dichloroethane	4.04	0.50	ug/l	5.00	ND	81	65-125			
1,2-Dichloroethane	3.41	0.50	ug/l	5.00	ND	68	50-140			
1.1-Dichloroethene	4.74	0.50	ug/l	5.00	ND	95	65-125			
cis-1.2-Dichloroethene	3.75	0.50	ug/l	5.00	ND	75	70-115			
trans-1.2-Dichloroethene	4.76	0.50	ug/l	5.00	ND	95	70-115			
1.2-Dichloropropane	3.93	0.50	ug/l	5.00	ND	79	65-125			
cis-1.3-Dichloropropene	3.25	0.50	ug/I	5.00	ND	65	45-130			
trans-1,3-Dichloropropene	3.36	0.50	ug/I	5.00	ND	67	55-110			
1.3-Dichloropropene, Total	6.61	0.50	ug/l	10.0	ND	66	30-140			
Ethylbenzene	4.09	0.50	ug/l	5.00	ND	82	60-120			
Methylene chloride	3.69	0.50	ug/l	5.00	ND	74	60-110			
Styrene	3.73	0.50	ug/l	5.00	ND	75	25-140			
1.1.2.2-Tetrachloroethane	3.51	0.50	ug/l	5.00	ND	70	50-140			
Tetrachloroethene	4.22	0.50	ug/l	5.00	ND	84	55-135			
Toluene	4.47	0.50	ug/l	5.00	ND	89	65-125			
1.2,4-Trichlorobenzene	4.50	0.50	ug/l	5.00	ND	90	45-140			
1.1.1-Trichloroethane	4.74	0.50	ug/l	5.00	ND.	95	60-135			
1.1.2-Trichloroethane	3.42	0.50	ug/l	5.00	ND	68	60-130			
Trichloroethene	4.31	0.50	ug/l	5.00	ND	86	75-115			

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

....

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C810433 Extracted: 09/04/08										
Matrix Spike Analyzed: 09/05/2008 (C8I0433-MS1)				Source: (CRH1142-	01RE1			
Trichlorofluoromethane (Freon 11)	4.97	5.0	ug/l	5.00	ND	99	65-140			
Trichlorotrifluoroethane (Freon 113)	5.54	10	ug/I	5.00	ND	111	60-135			
Vinyl chloride	4.80	0.50	ug/I	5.00	ND	96	60-130			
m,p-Xylenes	8.44	0.50	ug/l	10.0	ND	84	60-125			
o-Xylene	4.44	0.50	ug/l	5.00	ND	89	75-115			
Xylenes, Foto	12.9	1.0	ug/I	15.0	ND	86	60-135			
Methy stert-buryl Ether (MTBE)	5.88	3.0	ug/l	10.0	0.150	57	50-130			
Trihalomethanes, Total	83.4	1.0	ug/l	20.0	77.1	31	55-125			MHA
Surrogate: 4-Aromofluorobenzene	4.23		ug/l	5.00		85	70-130			
Surrogate: 1,= Dichlorobenzene-d4	4.19		ug/l	5.00		84	70-130			
Matrix Spike Dup Analyzed: 09/05/20	008 (C8I0433-M	SD1)			Source: C	RH1142-	01RE1			
Benzerle	5.02	0.50	ug/l	5.00	ND	100	70-125	13	25	
Bromedichloremethane	27.9	1.0	ug/l	5.00	25.6	45	40-150	3	20	
Brom form	6.11	1.0	ug/l	5.00	2.42	74	45-120	12	20	
Carbo tetrac toride	5.45	0.50	ug/l	5.00	0.220	105	60-140	12	30	
Chlor-henzen-	4.94	0.50	ug/l	5.00	ND	99	60-125	15	20	
Chloroform	30.3	10	ug/I	5.00	31.4	-23	55-130	1	15	MHA
Dibro achle methane	22.3	1.0	ug/l	5.00	17.6	94	50-130	6	15	
1.2-D isorol nzene	4.42	0.50	ug/l	5.00	ND	88	60-130	12	20	
1.4-D di orois uzene	4.71	0.50	ug/l	5.00	ND	94	60-135	13	20	
1.1-D roc ane	4.60	0.50	ug/l	5.00	ND	92	65-125	13	20	
1.2-D boroc rane	3.96	0.50	ug/l	5.00	ND	79	50-140	15	30	
1.1-D horoc sene	5.47	0.50	ug/l	5.00	ND	109	65-125	14	20	
cis-1.2 Dehle methene	4.66	0.50	ug/l	5.00	ND	93	70-115	22	15	R
trans- 2-Dick proethene	5.38	0.50	ug/l	5.00	ND	108	70-115	12	20	
1,2-D chlorop opane	4.59	0.50	ug/l	5.00	ND	92	65-125	15	20	
cis-1. Dichloropropene	3.74	0.50	ug/l	5.00	ND	75	45-130	14	15	
trans- 3-Dici-oropropene	3.85	0.50	ug/l	5.00	ND	77	55-110	14	20	
1.3-Dichloropropene, Total	7.59	0.50	ug/l	10.0	ND	76	30-140	14	20	
Ethyllogizene	4.66	0.50	ug/l	5.00	ND	93	60-120	13	20	
Methy one chamide	4.18	0.50	ug/l	5.00	ND	84	60-110	12	15	
Styrene	4.30	0.50	ug/I	5.00	ND	86	25-140	14	25	
1,1,2,2-Tetracoloroethane	4.16	0.50	ug/l	5.00	ND	83	50-140	17	30	
Tetracilloroetlyme	4.97	0.50	ug/l	5.00	ND	99	55-135	16	20	
Toluere	5.13	0.50	ug/l	5.00	ND	103	65-125	14	20	

Test.\merica Ontario



1014 E. Cooley Dr., Ste A., Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Analyte	Dacult	Reporting Limit	Pater	Spike	Source	0/DEC	%REC	nnn	RPD	Data
Allalyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C810433 Extracted: 09/04/08										
Matrix Spike Dup Analyzed: 09/05/2	008 (C810433-N	ISD1)			Source: C	RH1142-	01RE1			
1.2,4-Trichlorobenzene	4.94	0.50	ug/l	5.00	ND	99	45-140	9	20	
1,1,1-Trichloroethane	5.36	0.50	ug/l	5.00	ND	107	60-135	12	35	
1.1,2-Trichloroethane	4.13	0.50	ug/I	5.00	ND	83	60-130	19	25	
Trichloroethene	4.91	0.50	ug/l	5.00	ND	98	75-115	13	20	
Trichlorofluoromethane (Freon 11)	5.59	5.0	ug/l	5.00	ND	112	65-140	12	25	
Trichlorotrifluoroethane (Freon 113)	6.25	10	tig/l	5.00	ND	125	60-135	12	25	
Vinyl chloride	5.42	0.50	ug/l	5.00	ND	108	60-130	12	20	
m,p-Xylenes	9.49	0.50	ug/I	10.0	ND	95	60-125	12	20	
o-Xylene	5.05	0.50	ug/l	5.00	ND	101	75-115	13	20	
Xylenes, Total	14.5	1.0	ug/l	15.0	ND	97	60-135	12	20	
Methyl-tert-butyl Ether (MTBE)	7.12	3.0	ug/l	10.0	0.150	70	50-130	19	25	
Trihalomethanes, Total	86.6	1:0	ug/l	20.0	77.1	47	55-125	4	15	MHA
Surrogate: 4-Bromofluorobenzene	4.23		ug/I	5.00		85	70-130			
Surrogate: 1.2-Dichlorobenzene-d4	4.13		ug/l	5.00		83	70-130			



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

CDHS SRL 524 MODIFIED METHOD FOR 1,2,3-TRICHLOROPROPANE PT/GCMS

	Reporting		Spike	Source		%REC		RPD	Data
Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
BLK1)									
ND	5.0	ng/L							
S1)									
6.00	5.0	ng/L	5.00		120	80-120			
H2604-MS1)			Source: C	CRH0851-	10			
47.9	5.0	ng/L	50.0	ND	96	45-140			
3 (C8H2604-	MSD1)			Source: C	RH0851-	10			
49.6	5.0	ng/L	50.0	ND	99	45-140	4	27	
	BLK1) ND S1) 6.00 H2604-MS1; 47.9 8 (C8H2604-	Result Limit BLK1) ND 5.0 S1) 6.00 5.0 H2604-MS1) 47.9 5.0 8 (C8H2604-MSD1)	Result Limit Units BLK1) ND 5.0 ng/L S1) 6.00 5.0 ng/L H2604-MS1) 47.9 5.0 ng/L 8 (C8H2604-MSD1)	Result Limit Units Level BLK1) ND 5.0 ng/L S1) 6.00 5.0 ng/L 5.00 H2604-MS1) 47.9 5.0 ng/L 50.0 3 (C8H2604-MSD1) 6 (C8H2604-MSD1) 6 (C8H2604-MSD1) 6 (C8H2604-MSD1)	Result Limit Units Level Result BLK1) ND 5.0 ng/L S1) 6.00 5.0 ng/L 5.00 H2604-MS1) Source: G 47.9 5.0 ng/L 50.0 ND 3 (C8H2604-MSD1) Source: G	Result Limit Units Level Result %REC BLK1) ND 5.0 ng/L source: Source: CRH0851- 6.00 5.0 ng/L source: CRH0851- 47.9 5.0 ng/L source: CRH0851- 8 (C8H2604-MSD1) Source: CRH0851-	Result Limit Units Level Result %REC Limits BLK1) ND 5.0 ng/L surce: CRH0851-10 ng/L surce: CRH0851-10 surce: CRH0851-10	Result Limit Units Level Result %REC Limits RPD BLK1) ND 5.0 ng/L surce: 120 80-120 S1) 6.00 5.0 ng/L 5.00 120 80-120 H2604-MS1) 47.9 5.0 ng/L 50.0 ND 96 45-140 3 (C8H2604-MSD1) Source: CRH0851-10	Result Limit Units Level Result %REC Limits RPD Limit BLK1) ND 5.0 ng/L source ng/L ng/L ng/L source ng/L source ng/L ng/L ng/L source ng/L ng/L source ng/L source ng/L ng/L source ng/L ng/L </td



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

EDB AND DBCP IN WATER BY GC/ECD (EPA 504.1)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C810830 Extracted: 09/08/08										
Blank Analyzed: 09/08/2008 (C810830-	BLK1)									
1.2-Dibromoethane (EDB)	ND	0.020	ug/l							
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l							
Surrogate: 4-Bromofluorobenzene	9.01		ug/l	5.00		180	65-154			Z2
LCS Analyzed: 09/08/2008 (C810830-B	S1)									
1,2-Dibromoethane (EDB)	0.198	0.020	ug/l	0.250		79	70-130			
1,2-Dibromo-3-chloropropane	0.200	0.010	ug/l	0.250		80	70-130			
Surrogate: 4-Bromofluorobenzene	4.48		ug/I	5.00		89	65-154			
LCS Dup Analyzed: 09/09/2008 (C8108	30-BSD1)									
1.2-Dibromoethane (EDB)	0.121	0.020	tig/l	0.0993		121	70-130	42	30	R-7
1.2-Dibromo-3-chloropropane	0.111	0.010	ug/l	0.0993		111	70-130	33	21	R-7
Surrogate: 4-Bromofluorobenzene	10.4		ug/l	4.97		209	65-154			ZI
Matrix Spike Analyzed: 09/08/2008 (C	810830-MS1)				Source: C	RI0171-0	1			
1.2-Dibromoethane (EDB)	0.206	0.020	ug/l	0.247	ND	83	65-135			
1.2-Dibromo-3-chloropropane	0.204	0.010	ug/l	0.247	ND	83	65-135			
Surrogate: 4-Bromofluorobenzene	4.15		ug/l	4.94		84	65-154			



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number; CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8I0210 Extracted: 09/02/08										
Blank Analyzed: 09/03/2008 (C810210	-BLK1)									
Atrazine	ND	0.50	ug/l							
Benzo(a)pyrene	ND	0.10	ug/l							
Di(2-ethylhexyl)adipate	ND	5.0	ug/l							
Di(2-ethylhexyl)phthalate	ND	3.0	ug/I							
Hexachlorobenzene	ND	0.50	ug/l							
Hexachlorocyclopentadiene	ND	1.0	ug/l							
Molinate	ND	2.0	ug/l							
Simazine	ND	1.0	ug/l							
Thiobencarb	ND	1.0	ug/l							
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.64		ug l	5.00		93	70-130			
Surrogate: Triphenylphosphate	5.30		ug/l	5.00		106	70-130			
Surrogate: Perylene-d12	4.89		ug/l	5.00		98	70-130			
LCS Analyzed: 09/03/2008 (C8I0210-E	BS1)									
Atrazine	4.89	0.50	ug/l	5.00		98	70-130			
Benzo(a)pyrene	5.90	0.10	ug/l	5.00		118	70-130			
Di(2-ethylhexyl)adipate	10.5	5.0	ug/l	10.0		105	70-130			
Di(2-ethylhexyl)phthalate	11.0	3.0	ug/l	10.0		110	70-130			
Hexachlorobenzene	5.43	0.50	ug/l	5.00		109	70-130			
Hexachlorocyclopentadiene	12.9	1.0	ug/l	10.0		129	70-130			
Molinate	5.02	2.0	ug/l	5.00		100	70-130			
Simazine	4.20	1.0	ug/I	5.00		84	70-130			
Thiobencarb	5.02	1.0	ug/I	5.00		100	70-130			
Surrogate: 1.3-Dimethyl-2-nitrobenzene	4.53		ug/l	5.00		91	70-130			
Surrogate: Triphenylphosphate	5.11		ug/l	5.00		102	70-130			
Surrogate: Perylene-d12	5,21		ug/l	5.00		104	70-130			
LCS Dup Analyzed: 09/03/2008 (C8102	(10-BSD1)									
Atrazine	5.18	0.50	ug/I	5.00		104	70-130	6	10	
Benzo(a)pyrene	6.28	0.10	ug/l	5.00		126	70-130	6	10	
Di(2-ethylhexyl)adipate	10.8	5.0	ug/l	10.0		108	70-130	3	10	
Di(2-ethylhexyl)phthalate	11.9	3.0	ug/I	10.0		119	70-130	8	10	
Hexachlorobenzene	5.61	0.50	ug/l	5.00		112	70-130	3	10	
Hexachlorocyclopentadiene	13.3	1.0	ug/l	10.0		133	70-130	3	15	L
Molinate	5.08	2.0	ug/l	5.00		102	70-130	1	10	
Simazine	4.40	1.0	ug/l	5.00		88	70-130	5	10	
Thiobencarb	5.16	1.0	ug/I	5.00		103	70-130	3	5	
						1000	and and a	-		

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C810210 Extracted: 09/02/08										
LCS Dup Analyzed: 09/03/2008 (C8102	210-BSD1)									
Surrogate: 1.3-Dimethyl-2-nitrobenzene	4.49		ug/l	5.00		90	70-130			
Surrogate: Triphenylphosphate	5.10		ug/l	5.00		102	70-130			
Surrogate: Perylene-d12	5.41		ug/l	5.00		108	70-130			



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project 1D: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2720 Extracted: 08/27/0	8_									
Blank Analyzed: 08/27/2008 (C8H27	20-BLK1)									
Alachlor	ND	1.0	ug/l							C
Endrin	ND	0.10	ug/l							C
Heptachlor	ND	0.010	ug/I							C
Heptachlor epoxide	ND	0.010	ug/l							C
Lindane (gamma-BHC)	ND	0.20	ug/I							C C C C
Methoxychlor	ND	10	ug/l							C
Chlordane	ND	0.10	ug/l							
Toxaphene	ND	1.0	ug/l							
Aroclor 1016	ND	0.26	ug/l							
Aroclor 1221	ND	0.19	ug/l							
Aroclor 1232	ND	0.23	ug/l							
Aroclor 1242	ND	0.26	ug/l							
Aroclor 1248	ND	0.30	ug/l							
Aroclor 1254	ND	0.33	ug/l							
Aroclor 1260	ND	0.36	ug/l							
PCBs as Decachlorobiphenyl (DCB)	ND	0.50	ug/l							
LCS Analyzed: 08/28/2008 (C8H2720)-BS1)									
Alachlor	1.56	1.0	ug/l	1.00		155	70-130			C.L
Endrin	0.167	0.10	ug/l	0.100		167	70-130			C.L
Heptachlor	0.152	0.010	ug/l	0.100		152	70-127			C. L
Heptachlor epoxide	0.184	0.010	нд/1	0.100		184	70-127			C. L.
Lindane (gamma-BHC)	0.122	0.20	ug/l	0.100		122	77-128			
Methoxychlor	2.08	10	ug/l	0.501		414	70-130			C, L
LCS Analyzed: 08/28/2008 (C8H2720)-BS2)									
Aroclor 1221	4.02	0.19	ug/l	5.01		80	73-130			

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2720 Extracted: 08/27/08										
LCS Dup Analyzed: 08/28/2008 (C8H	2720-BSD1)									
Alachlor	1.06	1.0	ug/l	0.601		176	70-130	12	20	C, L
Endrin	0.120	0.10	ug/l	0.0601		199	70-130	18	20	C, L
Heptachlor	0.104	0.010	ug/l	0.0601		172	70-127	13	20	C, L
Heptachlor epoxide	0.129	0.010	ug/l	0.0601		214	70-127	15	20	C. L
Lindane (gamma-BHC)	0.0884	0.20	ug/l	0.0601		147	77-128	19	20	C. L
Methoxychlor	1.35	10	ug/l	0.301		449	70-130	8	20	C. L
Matrix Spike Analyzed: 08/28/2008 (C	(8H2720-MS1)				Source: C	RH1072-	01			
Alachlor	1.19	1.0	ug/l	1.03	ND	115	65-135			
Endrin	0.0984	0.10	ug/l	0.103	ND	95	65-135			
Heptachlor	0.0355	0.010	ug/l	0.103	ND	34	65-135			M2
Heptachlor epoxide	0.104	0.010	ug/l	0.103	0.00704	93	65-135			
Lindane (gamma-BHC)	0.0889	0.20	ug/l	0.103	ND	86	65-135			
Methoxychlor	0.733	10	ug/I	0.517	ND	142	65-135			MI
Matrix Spike Analyzed: 08/28/2008 (C	(8H2720-MS2)				Source: C	RH1072-)9			
Alachlor	2.11	1.0	tig/I	0.974	ND	217	65-135			MI
Endrin	0.207	0.10	ug/l	0.0974	ND	213	65-135			MI
Heptachlor	0.114	0.010	ug/l	0.0974	ND	117	65-135			
Heptachlor epoxide	0.199	0.010	ug/I	0.0974	ND	204	65-135			MI
Lindane (gamma-BHC)	0.146	0.20	ug/I	0.0974	ND	150	65-135			MI
Methoxychlor	2,59	10	ug/l	0.487	ND	533	65-135			MI

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

CHLORINATED ACIDS (EPA 515.4)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2801 Extracted: 08/28/08										
Blank Analyzed: 08/28/2008 (C8H2801	-BLK1)									
Bentazon	ND	2.0	ug/l							C
2,4-D	ND	10	ug/l							C
Dalapon	ND	10	ug/l							
Daethal acid metabolites	ND	1.0	ug/l							
Dicamba	ND	1.5	ug/l							
Dinoseb	ND	2.0	ug/l							
Pentachlorophenol	ND	0.20	ug/l							
Picloram	ND	1.0	ug/l							C
2,4,5-TP (Silvex)	ND	1.0	ug/l							
Surrogate: 2,4-Dichlorophenylacetic acid	22.3		ug/l	20.1		111	70-130			
LCS Analyzed: 08/28/2008 (C8H2801-I	BS1)									
Bentazon	1.38	2.0	ug/l	0.805		172	70-130			C.L
2,4-D	1.19	10	ug/l	0.805		148	70-130			C. L.
Dalapon	0.755	10	ug/I	0.805		94	70-130			
Daethal acid metabolites	0.984	1.0	ug/l	0.805		122	70-130			
Dicamba	0.428	1.5	ug/l	0,402		106	70-130			
Dinoseb	0.780	2.0	ug/l	0.805		97	70-130			
Pentachlorophenol	0.0793	0.20	ug/l	0.0805		98	70-130			
Picloram	0.551	1.0	ug/l	0.402		137	70-130			C. L.
2,4,5-TP (Silvex)	0.220	1.0	ug/l	0.201		109	70-130			
Surrogate: 2.4-Dichlorophenylacetic acid	22.4		ug/I	20.1		111	70-130			
LCS Dup Analyzed: 08/29/2008 (C8H2	801-BSD1)									
Bentazon	2.01	2.0	ug/l	2.41		83	70-130	69	20	R-7
2,4-D	3.15	10	ug/l	2.41		130	70-130	12	20	
Dalapon	2.28	10	ug/l	2.41		94	70-130	1	20	
Daethal acid metabolites	2.25	1.0	ug/l	2.41		93	70-130	27	20	R-7
Dicamba	1.16	1.5	ug/l	1.21		96	70-130	10	20	
Dinoseb	2.37	2.0	ug/l	2.41		98	70-130	1	20	
Pentachlorophenol	0.223	0.20	ug/l	0.241		92	70-130	6	20	
Picloram	1 70	1.0	ug/I	1.21		141	70-130	3	20	C.L.
2,4,5-TP (Silvex)	0.632	0.1	ug/I	0.604		105	70-130	4	20	
Surrogate: 2,4-Dichlorophenylacetic acid	21.3		ug/l	20.1		106	70-130			

TestAmerica Ontario



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

CHLORINATED ACIDS (EPA 515.4)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: C8H2801 Extracted: 08/28/08										
Matrix Spike Analyzed: 08/28/2008 (CS	3H2801-MS1)				Source: (CRH0767-	01			
Bentazon	0.761	2.0	ug/I	0.799	ND	95	70-130			
2,4-D	1.15	10	ug/I	0.799	ND	144	70-130			MI
Dalapon	0.859	10	ug/l	0.799	ND	107	70-130			
Dacthal acid metabolites	0.904	1.0	ug/l	0.799	ND	113	70-130			
Dicamba	0.437	1.5	ug/l	0.400	ND	109	70-130			
Dinoseb	0,756	2.0	ug/l	0.799	ND	95	70-130			
Pentachlorophenol	0.0685	0.20	ug/l	0.0799	0.00815	76	70-130			
Picloram	0.647	1.0	ug/l	0.400	ND	162	70-130			MI
2,4,5-TP (Silvex)	0.215	1.0	ug/l	0,200	ND	108	70-130			
Surrogate: 2,4-Dichlorophenylacetic acid	5,76		ug/I	20.0		29	70-130			Z



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

%REC

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

RPD

Data

METHOD BLANK/QC DATA

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

Snike

Source

Reporting

		Reporting		эріке	Source		OREC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2618 Extracted: 03	8/26/08									
Blank Analyzed: 08/26/2008 (C	(8H2618-BLK1)									
Aldicarb Sulfoxide	ND	3.0	ug/I							
Aldicarb Sulfone	ND	2.0	ug/I							
Oxamyl	ND	20	ug/I							
Methomyl	ND	2.0	ug/l							
3-Hydroxycarbofuran	ND	3.0	ug/I							
Aldicarb	ND	3.0	ug/l							
Carbofuran	ND	5.0	ug/l							
Carbaryl	ND	5.0	ug/I							
LCS Analyzed: 08/26/2008 (C8	H2618-BS1)									
Aldicarb Sulfoxide	10.8	3.0	ug/l	10.0		108	80-120			
Aldicarb Sulfone	10.9	2.0	ug/l	10,0		109	80-120			
Oxamyl	11.2	20	ug/l	10.0		112	80-120			
Methomyl	11.2	2.0	ug/l	10.0		112	80-120			
3-Hydroxycarbofuran	10.9	3.0	ug/l	10.0		109	80-120			
Aldicarb	10.4	3.0	ug/l	10.0		104	80-120			
Carbofuran	10.3	5.0	ug/l	10.0		103	80-120			
Carbaryl	10.8	5.0	ug/l	10.0		108	80-120			
LCS Dup Analyzed: 08/27/2008	8 (C8H2618-BSD1)									
Aldicarb Sulfoxide	21.9	3.0	ug/l	20.0		011	80-120	2	20	
Aldicarb Sulfone	22.2	2.0	ug/I	20.0		111	80-120	2	20	
Oxamyl	22.9	20	ug/l	20.0		115	80-120	2	20	
Methomyl	22.6	2.0	ug/I	20.0		113	80-120	1	20	
3-Hydroxycarbofuran	22.3	3.0	ug/I	20.0		111	80-120	2	20	
Aldicarb	20.8	3.0	ug/l	20.0		104	80-120	0	20	
Carbofuran	20.9	5.0	ug/l	20.0		104	80-120	1	20	
Carbaryl	22.0	5.0	ug/l	20.0		110	80-120	2	20	

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

METHOD BLANK/QC DATA

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2618 Extracted: 08	8/26/08									
Matrix Spike Analyzed: 08/26/	2008 (C8H2618-MS1)				Source: (RH0875-	01			
Aldicarb Sulfoxide	20.4	3.0	ug/l	20.0	ND	102	65-135			
Aldicarb Sulfone	20.2	2.0	ug/l	20.0	ND	101	65-135			
Oxamyl	20.8	20	ug/l	20.0	ND	104	65-135			
Methomyl	20.6	2.0	ug/l	20.0	ND	103	65-135			
3-Hydroxycarbofuran	20.3	3.0	ug/l	20.0	ND	101	65-135			
Aldicarb	18.2	3.0	ug/l	20.0	ND	91	65-135			
Carbofuran	18.8	5.0	ug/I	20.0	ND	94	65-135			
Carbaryl	19.9	5.0	ug/l	20.0	ND	100	65-135			



1014 E Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

GLYPHOSATE (EPA 547)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C8H2904 Extracted: 08/30/0			Cana	Level	resur	/orthe	Links	III D	Zillik	Quantities
Blank Analyzed: 08/30/2008 (C8H29	004-BLK1)									
Glyphosate	ND	25	ug/l							
LCS Analyzed: 08/30/2008 (C8H290	(4-BS1)									
Glyphosate	21.9	25	ug/I	25.0		88	80-110			
LCS Dup Analyzed: 08/31/2008 (C8	H2904-BSD1)									
Glyphosate	40.9	25	ug/l	50.0		82	80-110	7	10	
Matrix Spike Analyzed: 08/30/2008	(C8H2904-MS1)				Source: (CRH0919-	01			
Glyphosate	17.9	25	ug/l	25.0	ND	72	80-110			A12
Matrix Spike Analyzed: 08/30/2008	(C8H2904-MS2)				Source: 0	CRH0933-	01			
Glyphosate	22.7	25	ug/I	25.0	ND	91	80-110			



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

DIQUAT/PARAQUAT (EPA 549.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2710 Extracted: 08/27/08										
Blank Analyzed: 08/27/2008 (C8H2710	-BLK1)									
Diquat	ND	4.0	ug/I							
Paraquat	ND	20	ug/l							
LCS Analyzed: 08/27/2008 (C8H2710-I	BS1)									
Diquat	17.8	4.0	ug/L	20.0		89	70-105			
Paraquat	17.5	20	ug/l	20,0		87	55-110			
LCS Dup Analyzed: 08/27/2008 (C8H2)	710-BSD1)									
Diquat	156	4.0	ug/l	20,0		78	70-105	13	15	
Paraquat	15.1	20	ug/I	20.0		75	55-110	15	1.5	
Matrix Spike Analyzed: 08/27/2008 (C8	H2710-MS1				Source: C	RH0933-	01			
Diquat	18.2	4.0	ug/l	20.0	ND	91	70-105			
Paraquat	17.3	20	ug/1	20.0	ND	87	55-110			



1014 E. Cooley Dr. Ste A, Colton. CA 92324 (909) 370-4667 Fax. (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8H2616 Extracted: 08/26/0	8									
Blank Analyzed: 08/26/2008 (C8H26	16-BLK1)									
Odor	ND	1:0	T.O.N.							
Batch: C8H2619 Extracted: 08/26/0	8									
Duplicate Analyzed: 08/26/2008 (C8)	H2619-DUP1)				Source: C	RH0933-	01			рН
Color	ND	1	Color Units		ND				20	
Batch: C8H2626 Extracted: 08/26/0	8									
Blank Analyzed: 08/26/2008 (C8H26	26-BLK1)									
Turbidity	ND	0.10	NTU							
Duplicate Analyzed: 08/26/2008 (C8)	H2626-DUP1)				Source: C	CRH0933-	01			
Turbidity	ND	0.10	NTU		ND				10	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam

Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H26070 Extracted: 08.	/26/08									
Blank Analyzed: 08/26/2008 (81	H26070-BLK1)									
Mercury	ND	0.00020	mg/I							
LCS Analyzed: 08/26/2008 (8H	26070-BS1)									
Mercury	0.00811	0.00020	mg/l	0.00800		101	85-115			
Matrix Spike Analyzed: 08/26/2	2008 (8H26070-MS1)				Source: I	RH2237-0)1			
Mercury	0.00807	0.00020	mg/l	0.00800	0.000144	99	70-130			
Matrix Spike Dup Analyzed: 08	8/26/2008 (8H26070-1	MSD1)			Source: I	RH2237-0	01			
Mercury	0.00809	0.00020	mg/l	0.00800	0.000144	99	70-130	0	20	
Batch: 8II26081 Extracted: 08/	/26/08									
Blank Analyzed: 08/27/2008 (81	H26081-BLK1)									
Aluminum	ND	10	ug/l							
Uranium pCi/L (CA)	ND	1.0	pCi/L							
Antimony	ND	2.0	ug/I							
Arsenic	ND	1.0	ug/I							
Barium	ND	0.1	ug/I							
Beryllium	ND	0.50	ug/l							
Cadmium	ND	0.1	ug/l							
Chromium	ND	2,0	ug/l							
Copper	ND	2.0	ug/l							
Lead	ND	1.00	ug/l							
Manganese	ND	1.0	ug/l							
Nickel	ND	2.0	ug/l							
Selenium	ND	2.0	ug/l							
Silver	ND	1.0	ug/L							
Thallium	ND	1.0	ug/l							
Zinc	ND	20	ug/l							

TestAmerica Ontario

Melissa Cunningham Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax. (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H26081 Extracted: 08/26/08										
LCS Analyzed: 08/27/2008 (8H26081-B	S1)									
Aluminum	86.6	10	ug/l	80.0		108	85-115			
Uranium pCi/L (CA)	54.2	1.0	pCi/L	53.6		101	85-115			
Antimony	79.5	2.0	ug/l	80.0		99	85-115			
Arsenic	78.1	1.0	ug/l	80.0		98	85-115			
Barium	80.8	1.0	ug/l	80.0		101	85-115			
Beryllium	82.9	0.50	ug/l	80.0		104	85-115			
Cadmium	78.0	1.0	ug/l	80.0		98	85-115			
Chromium	79.5	2.0	ug/I	80.0		99	85-115			
Copper	81.5	2.0	ug/l	80.0		102	85-115			
Lead	81.1	1.0	ug/l	80.0		101	85-115			
Manganese	80.9	1.0	ug/l	80.0		101	85-115			
Nickel	80.0	2.0	ug/l	80.0		100	85-115			
Selenium	77.9	2.0	ug/l	80.0		97	85-115			
Silver	79.3	1.0	ug/I	80.0		99	85-115			
Thallium	80.8	1.0	ug/I	80.0		101	85-115			
Zine	79.5	20	ug/l	80.0		99	85-115			
Matrix Spike Analyzed: 08/27/2008 (8H	26081-MS1)				Source: C	RH0933-	01			
Aluminum	88.0	10	ug/l	80.0	ND	110	70-130			
Uranium pCi/L (CA)	50.6	1.0	pCi/L	53.6	5.73	84	70-130			
Antimony	75.9	2.0	ug/l	80.0	ND	95	70-130			
Arsenic	89.3	1.0	ug/l	80.0	9.73	.99	70-130			
Barium	109	1.0	ug/l	80.0	33.8	94	70-130			
Beryllium	101	0.50	ug/l	80.0	ND	126	70-130			
Cadmium	70.3	1.0	ug/l	80.0	ND	88	70-130			
Chromium	85.3	2.0	ug/l	80.0	4.80	101	70-130			
Copper	76.1	2.0	ug/l	80 0	2.25	92	70-130			
Lead	67.9	1.0	ug/l	80.0	ND	85	70-130			
Manganese	80.2	1.0	ug/l	80.0	ND	100	70-130			
Nickel	77.1	2.0	ug/l	80.0	1.82	94	70-130			
Selenium	75.8	2.0	ug/l	80.0	4.96	89	70-130			
Silver	69.3	1.0	ug/l	80.0	ND	87	70-130			
Thallium	67.0	1.0	ug/l	80.0	ND	84	70-130			
Zine	74.1	20	ug/l	80.0	4.21	87	70-130			

TestAmerica Ontario



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

%REC

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Reporting

Sampled: 08/25/08 Received: 08/25/08

RPD

Data

METHOD BLANK/QC DATA

METALS

Spike Source

		rechoring		Spine	Source		/DILLIC		ILI D	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H26081 Extracted: 08	8/26/08									
Matrix Spike Dup Analyzed: 0	8/27/2008 (8H26081-N	(ISD1)			Source: (CRH0933-	01			
Aluminum	88.0	10	ug/l	80.0	ND	110	70-130	0	20	
Uranium pCi/L (CA)	52.6	1.0	pCi/L	53.6	5.73	87	70-130	4	20	
Antimony	76.5	2.0	ug/l	80.0	ND	96	70-130	1	20	
Arsenic	91.7	1.0	ug/l	80.0	9.73	103	70-130	3	20	
Barium	108	1.0	ug/l	80.0	33.8	92	70-130	1	20	
Beryllium	100	0.50	ug/l	80.0	ND	126	70-130	0	20	
Cadmium	69.5	1.0	ug/l	80.0	ND	87	70-130	1	20	
Chromium	85.0	2.0	ug/l	80.0	4.80	100	70-130	0	20	
Copper	74.8	2.0	ug/l	80.0	2.25	91	70-130	2	20	
Lead	69.0	1.0	ug/l	80.0	ND	86	70-130	2	20	
Manganese	80.0	1.0	ug/l	80.0	ND	100	70-130	0	20	
Nickel	75.3	2.0	ug/l	80.0	1.82	92	70-130	2	20	
Selenium	76.3	2.0	ug/l	80.0	4 96	89	70-130	1	20	
Silver	69.0	1.0	ug/l	80.0	ND	86	70-130	0	20	
Thallium	69.2	1.0	ug/l	80.0	ND	86	70-130	3	20	
Zinc	70.0	20	ug/l	80.0	4.21	82	70-130	6	20	
Batch: 8H29097 Extracted: 08	29/08									
Blank Analyzed: 09/03/2008-09	0/04/2008 (81129097-B)	LK1)								
Calcium	0.221	0.10	mg/l							B
Iron	ND	0.040	mg/I							
Magnesium	ND	0.020	mg/l							
Potassium	ND	0.50	mg/l							
Sodium	ND	0.50	mg/l							
LCS Analyzed: 09/03/2008-09/0	04/2008 (8H29097-BS1	1)								
Calcium	0.965	0.10	mg/l	1.00		96	85-115			
Iron	0.961	0.040	mg/l	1.00		96	85-115			
Magnesium	1.04	0.020	mg/l	1.00		104	85-115			
Potassium	10.2	0.50	mg/l	10.0		102	85-115			
Sodium	9.72	0.50	mg/l	10.0		97	85-115			

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8H29097 Extracted: (
Matrix Spike Analyzed: 09/0.	3/2008-09/04/2008 (8H2	29097-MS1)			Source: I	RH2251-0)2			
Calcium	64.8	0.10	mg/l	1.00	65.8	-98	70-130			MHA
Iron	0.951	0.040	mg/l	1.00	ND	95	70-130			
Magnesium	15.0	0.020	mg/l	1.00	14.4	60	70-130			MHA
Potassium	15.2	0.50	mg/l	10.0	4.59	106	70-130			
Sodium	80_1	0.50	mg/l	10.0	72.7	73	70-130			MHA
Matrix Spike Analyzed: 09/03	3/2008-09/04/2008 (8H2	29097-MS2)			Source: C	RH0933-	01			
Calcium	99.5	0.10	mg/l	1.00	101	-126	70-130			MHA
Iron	0.902	0.040	mg/l	1.00	ND	90	70-130			
Magnesium	15.9	0.020	mg/l	1.00	14.9	97	70-130			MHA
Potassium	19.1	0.50	mg/l	10.0	8.23	109	70-130			
Sodium	365	0.50	mg/l	10.0	370	-57	70-130			MHA
Matrix Spike Dup Analyzed:	09/03/2008-09/04/2008	(8H29097-MSE	01)		Source: I	RH2251-0	12			
Calcium	65.2	0.10	mg/l	1.00	65.8	-56	70-130	1	20	MHA
Iron	0.956	0.040	mg/l	1.00	ND	96	70-130	1	20	
Magnesium	15.1	0.020	mg/l	1.00	14.4	69	70-130	0	20	MILA
Potassium	15.4	0.50	mg/l	10.0	4.59	108	70-130	1	20	
Sodium	81.2	0.50	mg/l	10.0	72.7	85	70-130	1	20	MHA-



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H25092 Extracted: 08/25/08										
Blank Analyzed: 08/25/2008 (8H2509)	2-BLK1)									
Chromium VI	ND	0.0010	mg/l							
LCS Analyzed: 08/25/2008 (8H25092-	-BS1)									
Chromium VI	0.0518	0.0010	mg/l	0.0500		104	90-110			
Matrix Spike Analyzed: 08/25/2008 (8	3H25092-MS1)				Source: I	RH2241-0	2			
Chromium VI	0.0340	0.0010	mg/l	0.0500	ND	68	90-110			M2
Matrix Spike Dup Analyzed: 08/25/20	008 (8H25092-N	(ISD1)			Source: I	RH2241-0	2			
Chromium VI	0.0343	0.0010	mg/l	0.0500	ND	69	90-110	1	10	M2
Batch: 8H25106 Extracted: 08/25/08										
Blank Analyzed: 08/25/2008 (8H25100	6-BLK1)									
Chloride	ND	0.50	mg/l							
Nitrate-N	ND	0.11	mg/l							
Nitrate-NO3	ND	0.50	mg/l							
Nitrite-N	ND	0.15	mg/l							
Nitrate/Nitrite-N	ND	0.26	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 08/25/2008 (8H25106-	BS1)									
Chloride	4.87	0.50	mg/l	5.00		97	90-110			11-3
Nitrate-N	1.06	0.11	mg/l	1.13		94	90-110			
Nitrate-NO3	4.69	0.50	mg/l	5.00		94	90-110			
Nitrite-N	1.50	0.15	mg/l	1.52		99	90-110			
Sulfate	10.3	0.50	mg/l	10.0		103	90-110			



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H25106 Extracted: 08/25/08										
Matrix Spike Analyzed: 08/25/2008 (8	3H25106-MS1)				Source: I	RH2249-0	1			
Nitrate-N	74.2	5.5	mg/l	11.3	65.0	81	80-120			MHA
Nitrate-NO3	329	25	mg/l	50 0	288	81	80-120			MHA
Nitrite-N	15.4	7.5	mg/l	15.2	ND	101	80-120			
Sulfate	1120	25	mg/l	100	1050	71	80-120			MHA
Matrix Spike Analyzed: 08/26/2008 (8	3H25106-MS2)				Source: Il	RH2254-0	2			
Chloride	71.5	10	mg/l	50.0	28.8	85	80-120			
Nitrate-N	17.3	2.2	mg/l	11.3	7.95	83	80-120			
Nitrate-NO3	76.8	10	mg/l	50.0	35.2	83	80-120			
Nitrite-N	13.3	3.0	mg/l	15.2	ND	87	80-120			
Sulfate	142	10	mg/l	100	45.1	97	80-120			
Matrix Spike Dup Analyzed: 08/25/20	08 (8H25106-N	ISD1)			Source: Il	RH2249-0	1			
Nitrate-N	75.5	5.5	mg/l	11.3	65.0	92	80-120	2	20	MHA
Nitrate-NO3	334	25	mg/l	50.0	288	92	80-120	2	20	MHA
Nitrite-N	18.6	7.5	mg/l	15.2	ND	122	80-120	19	20	MI
Sulfate	1110	25	mg/l	100	1050	65	80-120	ĺ	20	MHA
Batch: 8H26061 Extracted: 08/26/08										
Duplicate Analyzed: 08/26/2008 (8H2	6061-DUP1)				Source: 11	RH2272-0	1			
рН	7.89	0.100	pH Units		7.88			0	5	HFT
Batch: 8H26076 Extracted: 08/26/08										
Blank Analyzed: 08/26/2008 (8H2607)	5-BLK1)									
Alkalinity as CaCO3	ND	2.0	mg/l							
Alkalinity as CaCO3	ND	2.0	mg/l							
Bicarbonate Alkalinity as CaCO3	ND	2.0	mg/l							
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l							

TestAmerica Ontario



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H26076 Extracted: 08/26/0	08									
Duplicate Analyzed: 08/26/2008 (81	H26076-DUP1)				Source: C	RH0933-	01			
Alkalinity as CaCO3	116	2.0	mg/l		118			2	20	
Alkalinity as CaCO3	116	2.0	mg/l		118			2	20	
Bicarbonate Alkalinity as CaCO3	116	2.0	mg/l		118			2	20	
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l		ND				20	
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l		ND				20	
Reference Analyzed: 08/26/2008 (81	H26076-SRM1)									
Alkalinity as CaCO3	232	2.0	mg/l	249		93	90-110			
Alkalinity as CaCO3	232	2.0	mg/l	249		93	90-110			
Batch: 8H26127 Extracted: 08/26/0	08									
Blank Analyzed: 08/27/2008 (8H261	127-BLK1)									
Surfactants (MBAS)	ND	0.10	mg/l							
LCS Analyzed: 08/27/2008 (8H2612	(7-BS1)									
Surfactants (MBAS)	0.259	0.10	mg/l	0.250		103	90-110			
Matrix Spike Analyzed: 08/27/2008	(8H26127-MS1)				Source: Il	RH2251-0	2			
Surfactants (MBAS)	0.251	0.10	mg/l	0.250	ND	101	50-125			
Matrix Spike Dup Analyzed: 08/27/	2008 (8H26127-N	(ISD1)			Source: Il	RH2251-0	2			
Surfactants (MBAS)	0.255	0.10	mg/l	0.250	ND	102	50-125	2	20	
Batch: 8H27039 Extracted: 08/27/0	8									
Blank Analyzed: 08/27/2008 (8H270	39-BLK1)									
Fluoride	ND	0.10	mg/l							

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667. Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

INORGANICS

		Reportir	ıg	Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H27039 Extracted: 08/27/08										
LCS Analyzed: 08/27/2008 (8H27039-1	BS1)									
Fluoride	1.03	0.10	mg/l	1.00		103	90-110			
Matrix Spike Analyzed: 08/27/2008 (81	H27039-MS1)				Source: I	RH2422-0)3			
Fluoride	1.23	0.10	mg/l	1.00	0.374	85	80-120			
Matrix Spike Dup Analyzed: 08/27/200	08 (8H27039-N	ISD1)			Source: 1	RH2422-0)3			
Fluoride	1.25	0.10	mg/l	1.00	0.374	88	80-120	2	20	
Batch: 8H27049 Extracted: 08/27/08										
Blank Analyzed: 08/27/2008 (8H27049	BLK1)									
Total Dissolved Solids	ND	10	mg/l							
LCS Analyzed: 08/27/2008 (8H27049-E	SS1)									
Total Dissolved Solids	980	10	mg/l	1000		98	90-110			
Duplicate Analyzed: 08/27/2008 (8H27	049-DUP1)				Source: I	RH2253-0	4			
Total Dissolved Solids	312	10	mg/l		290			7	10	
Batch: 8H27054 Extracted: 08/27/08										
Duplicate Analyzed: 08/27/2008 (8H27)54-DUP1)				Source: I	RH2202-0	1			
Specific Conductance	815	1.0	umhos/em @ 25C		812			0	5	
Reference Analyzed: 08/27/2008 (8H27	054-SRM1)									
Specific Conductance	497	1.0	umhos/em @ 25C	462		108	90-110			



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8H27101 Extracted: 08/27/08										
Blank Analyzed: 08/27/2008 (8H27101-B	LK1)									
Total Cyanide	ND	0.025	mg/I							
LCS Analyzed: 08/27/2008 (8H27101-BS	1)									
Total Cyanide	0.186	0.025	mg/l	0.200		93	90-110			
Matrix Spike Analyzed: 08/27/2008 (8H2	7101-MS1)				Source: I	RH2419-0	6			
Total Cyanide	0.194	0.025	mg/l	0.200	ND	97	70-115			
Matrix Spike Dup Analyzed: 08/27/2008	(8H27101-)	MSD1)			Source: I	RH2419-0	6			
Total Cyanide	0.180	0.025	mg/l	0.200	ND	90	70-115	8	1.5	



1014 E. Cooley Dr., Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08

Received: 08/25/08

METHOD BLANK/QC DATA

EPA-5 1613B-Tetras

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8242295 Extracted: 08/29/0	8									
Blank Analyzed: 09/03/2008 (G8H2	(90000295B)				Source:					
2,3,7,8-TCDD	ND	5.0	pg/L				- 1			
Surrogate: 13C-2,3,7,8-TCDD	1000		pg/L	2000		50	25-141			
LCS Analyzed: 09/03/2008 (G8H29	0000295C)				Source:					
2,3,7,8-TCDD	164	NA	pg/L	200		82	73-146			
Surrogate: 13C-2,3,7.8-TCDD	979		pg/L	2000		49	25-141			



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

EPA 900.0 MOD

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8246173 Extracted: 09/02/08										
Matrix Spike Analyzed: 09/07/2008 (F8	H2802560038	5)			Source: F	8H280250	5003			
Gross Alpha	76.7	3	pCi/L	83.1	4	87	44-150			
Duplicate Analyzed: 09/07/2008 (F8H28	30256003X)				Source:					
Gross Alpha	2.7	3	pCi/L				51	42	40	U
Blank Analyzed: 09/07/2008 (F8I020000	0173B)				Source:					
Gross Alpha	0.37	3	pCi/L				-			U
LCS Analyzed: 09/07/2008 (F810200001	73C)				Source:					
Gross Alpha	45.4	3	pCi/L	49.4		92	72-138			



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

EPA 903.0 MOD

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8242349 Extracted: 08/29/08										
Blank Analyzed: 09/10/2008 (F8H290	000349B)				Source:					
Radium (total)	0.1	1	pCî/L				*			U
LCS Analyzed: 09/10/2008 (F8H29000	0349C)				Source:					
Radium (total)	10.9	t	pCi/L	11.3		97	71-125			
LCS Dup Analyzed: 09/10/2008 (F8H2	290000349L)				Source:					
Radium (total)	10.9	1	pCi/L	11.3		96	71-125	0	40	



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

EPA 904 MOD

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8242348 Extracted: 08/30/	08									
Blank Analyzed: 09/10/2008 (F8H:	290000348B)				Source:					
Radium 228	0.08	1	pCi/L				-			U
LCS Analyzed: 09/10/2008 (F8H29	90000348C)				Source:					
Radium 228	8.71	1	pCi/L	7.65		114	61-139			
LCS Dup Analyzed: 09/10/2008 (F	(8H290000348L)				Source:					
Radium 228	8.43	1	pCi/L	7.65		110	61-139	3	40	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

METHOD BLANK/QC DATA

EPA 906.0 MOD

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8246079 Extracted: 09/02/08										
Duplicate Analyzed: 09/03/2008 (F8H2	90219001X)				Source:					
Tritium	5070	500	pCi/L				-	3	40	
Matrix Spike Analyzed: 09/03/2008 (F	3H2902400015	S)			Source: C	RH0933-	01			
Tritium	5070	500	pCi/L	4920	110	101	27-150			
Blank Analyzed: 09/03/2008 (F8I02000	0079B)				Source:					
Tritium	250	500	pCi/L				-			U_0
LCS Analyzed: 09/03/2008 (F81020000	079C)				Source:					
Tritium	5060	500	pCi/L	4920		103	67-111			



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: Title 22 Testing 11001 Etiwanda Avenue Title 22 Testing

 11001 Etiwanda Avenue
 Title 22 Testing
 Sampled: 08/25/08

 Fontana, CA 92337
 Report Number: CRH0933
 Received: 08/25/08

Attention: Mike Haslam

DATA QUALIFIERS AND DEFINITIONS

В	Analyte was detected in the associated Method Blank.
B-1	Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
FT	This analysis was performed in the field by the sampler whose name appears on the attached Chain of Custody form.
HFT	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS),
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
МНА	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
pH	pH = 7.5
R	The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
R-7	LFB/LFBD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
RL1	Reporting limit raised due to sample matrix effects.
U	Result is less than the sample detection limit.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
Z1	Surrogate recovery was above acceptance limits.
Z2	Surrogate recovery was above the acceptance limits. Data not impacted.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference
T.O.N.	Threshhold Odor Number

SI Units Saturation Index Units



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337 Attention: Mike Haslam Project ID: Title 22 Testing

Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

Certification Summary

TestAmerica Ontario

Method	Matrix	Nelac	California
EPA 180.1	Water	X	X
EPA 504.1	Water	X	X
EPA 505	Water	X	X
EPA 515.4	Water	X	X
EPA 524.2	Water	X	X
EPA 525.2	Water	X	X
EPA 531.1	Water	X	
EPA 547	Water	X	X
EPA 549.2	Water	X	X
Field Test	Water		
SM2120B	Water	N/A	N/A
SM2150B	Water	N/A	N/A
SRL 524M-123TCP	Water		

Subcontracted Laboratories

EMS Laboratories-Sub California Cert #1119

117 West Bellvue Drive - Pasadena, CA 91105-2503

Method Performed: EPA 100.2 Samples: CRH0933-01

STL - St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: EPA 9

EPA 900.0 MOD

Samples: CRH0933-01

Method Performed: EPA 903.0 MOD

Samples: CRH0933-01

Method Performed: EPA 904 MOD

Samples: CRH0933-01

Method Performed: EPA 906.0 MOD

Samples: CRH0933-01

STL-Sacramento Nelac Cert #01119CA, Arizona Cert #AZ0708

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B-Tetras

Samples: CRH0933-01

TestAmerica Ontario

Melissa Cunningham Project Manager



1014 E. Cooley Dr., Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Project ID: Title 22 Testing
Title 22 Testing

Report Number: CRH0933

Sampled: 08/25/08 Received: 08/25/08

Attention: Mike Haslam

TestAmerica - Irvine, CA Nelac Cert #01108CA, California Cert #1197, Arizona Cert #AZ0671. Nevada Cert #CA-72

17461 Derian Avenue. Suite 100 - Irvine, CA 92614

Method Performed: Calc Samples. CRH0933-01

Method Performed: EPA 150.1 Samples: CRH0933-01

Method Performed: EPA 200.7 Samples: CRH0933-01

Method Performed: EPA 200.8 Samples: CRH0933-01

Method Performed: EPA 218.6 Samples: CRH0933-01

Method Performed: EPA 245.1 Samples: CRH0933-01

Method Performed: EPA 300.0 Samples: CRH0933-01

Method Performed: SM 4500-F-C Samples: CRH0933-01

Method Performed: SM2320B Samples: CRH0933-01

Method Performed: SM2340B Samples: CRH0933-01

Method Performed: SM2510B Samples: CRH0933-01

Method Performed: SM2540C Samples: CRH0933-01

Method Performed; SM4500-CN-C,E Samples: CRH0933-01

Method Performed: SM5540-C Samples: CRH0933-01

TestAmerica Ontario

Melissa Cunningham Project Manager



(480) 785-0043 (702) 798-3620 (949) 261-1022 (858) 505-9596 (909) 370-4667 9830 South 51st, Suite B-120, Phoenix, AZ 85044 2520 East Sunset, #3, Las Vegas, NV 89120 2852 Alton Avenue, Irvine, CA 92606. 1014 East Cooley Drive, Suite A, Colton, CA 92324 9484 Chesapeake Dr., Ste. 805, San Diego, CA 92123

FAX (909) 370-1046 FAX (858) 505-9689 FAX (849) 261-1228 FAX (480) 785-0851 FAX (702) 798-3621 0

4

48 hours Er10:23.8 Turnaround Time*: (check one) 7 day *Surcharges may be applied for remaining hold time <48 hours. ☐ Manganese ☐ Magneslum Immediate ☐ Potassium □ Vanadium On Ice: 2 □ Selenium Silver Sodium C Mercury □ Thallium Sample Integrity: Temp: □ Nickel ō Page 1 02 72 Hours 24 Hours SH: 6.45 Normal | Antimony | Arsenic | Barlum | Barlum | Beryllum | Boron | Cadmium | Calclum | Chromium Chromium ☐ Aluminum Intact: Lake - # 27-1643. Date/Time; 19 Date/Time Date/Time 80-52-08 PWS 10# Jackawich POE #: Yes 3 ころは Samples acidified after dechlorination? 25 å 2 norganic Chemicals (see fee schedule) P.O./Project Name://オルレデル Project Manager: VICTOIL General Physical (see fee schedule) DRINKING WATER CHAIN OF CUSTODY FORM Compliance Sample: Yes General Minerals (see fee schedule) 390-609刊Data to state's database? Yes (PWS ID required) Metals (Specify) Heterotrophic Plate Count (HPC) Received in Lab by Coliforn, Total 🛘 Fecal [UNINGHAIR Received by: Received by S.ehd feupers4 / feupiG Endothall 548.1 15-08/1146 Clyphosale 547 10855 Date/Time: Date/Time; Date/Time: Cambamales 531.1 Chtorinated Acids 515.3 8-25-081 6233 esticides and PCBs 505 🗖 508.1 🗖 EDB / DBCP / TCP 504.1 4 MCCCCO Semivolatiles Reg. DnReg. 525.2. Zip: N Trihalomethanes Only 524.2 Volatiles Reg. ☐ UnReg. ☐ 524.2 Number of Containers 17/ State: Christansen 0830 Refinquished by 7 Time Relinquished by: Relinquistant 505 Remarks: 36.5 Date Sampled 1. WASAA Fax: NU Matrix (see Matrix Table) Sampler(s) Name & Signature: 833 FW - Treated Water (Point of Entry) AYNO RYKEN-WEII-52 2 RW - Raw Water (Source) Sample I.D. RW - Recreational Water 1001 しょん アレコイ 390-DW - Drinking Water SW - Surface Water GW - Groundwater Client Name: Matrix Types Tel:/505 Address: City:

Form Rev. 3-27-03 Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days. All work is subject to Del Mar Analytical's terms and conditions unless previously agreed to in writing. Note: By relinquishing samples to Del Mar Analylical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project.

DATE:

September 3, 2008

CLIENT:

TestAmerica, Ontario 1014 E. Cooley Dr, Ste. A

Colton, CA 92324

ATTENTION:

Melissa Cunningham

REFERENCE:

CRH0933

REPORT NO:

123466

SUBJECT:

ANALYSIS OF WATER SAMPLE FOR ASBESTOS BY TEM

ACCREDITED:

California Department of Health Services (ELAP-1119)

The date and times of collection, receipt, filtration, and analysis are as follows:

SAMPLE NO:

CRH0933-01

COLLECTED:

8/25/08 at 0830

RECEIVED:

8/26/08 at 1040

FILTERED:

8/26/08 at 1115

ANALYZED:

9/2/08

The sample was analyzed for fibers >10 μ m in length to conform with the drinking water document, EPA 600 R 94 134, 100.2. This regulation calls for an MCL (maximum contaminant level) of 7 MFL and an analytical sensitivity level of 0.2 MFL.

No asbestos structures >10 μ m in length were detected. The analytical sensitivity of 0.2 MFL was reached.

The results of the analysis and the detection limit are summarized on the following pages.

Respectfully submitted, EMS LABORATORIES, INC.

Laboratory Director

BMK/mt '

NOTE: The results of the analysis are based upon the samples submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples.

This report, from a NIST laboratory through NVLAP, must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

This report shall not be reproduced, except in full, without the written approval of EMS Laboratories, Inc.

Any deviation or exclusion from the test method is noted in this cover letter.

Unless otherwise noted in this cover letter, the samples were received properly packaged, clearly identified and intact.

ANALYSIS OF WATER BY TEM (EPA-600 R 94 134) EPA 100.2

LAB NO: 123466 CLIENT: Test America 9/2/2008

			FILTER	MEDIA DATA			
Laboratory I.D.	Client I.D.	Туре	Diameter mm	Effective Area mm^2	No. of G.O.	Analyzed Area, mm^2	Sample Volume (ml)
123466-1	CRH0933-01*	PC	47	1017	10	0.093	60
					7		
			- 1 - 7 - 5				

^{*} FOR FIBERS > 10um ONLY

INDIVIDUAL ANALYTICAL RESULTS

Laboratory	Client	N	o. of Asbe	stos	Detection	COI	NCENTRAT	ION (MFL)
I.D.	I.D.	Str	Str >5um	Str >10um	Limit (MF/L)	Str		Str >10um
123466-1	CRH0933-01*	÷	100	N.D.	0.2			N.D.
					1			
					12			

^{*} FOR FIBERS > 10um ONLY

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.

1971 Kille Authorized Signature

TEM 7A (1994)

Analysis of Water by Transmission Electron Microscopy (EPA-600 R 94 134) EPA 100.2

EMS No.	123466	Client	Test America	
Sample No.	CRH0933-01		Date Analyzed	9/2/2008
Fibers > 10 μm	n in length (chrysotile)		BDL*	_ MFL
Mass (chrysoti	ile)		0	ug/L
More/Less that in Sample (chr			LESS	-
Poisson 95% (Confidence Interval		0 to0.	7 MFL
Detection Limi	t		0.2	MFL
* BDL : Below	Detection Limit: MFL: Million Fib.	ers per Liter		

BDL : Below Detection Limit; MFL: Million Fibers per Liter

Particle Size Distribution (Chrysotile)

Particle Length - Microns

O -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 - 4.99	5.00 - 9.99	10 & UP
0	0	0	0	0	0	0	0
			Particle Widt	h - Microns			
O04	.0509	.114	.1519	.224	.2549	.5099	1 & UP
0	0	0	0	0	0	0	0
			Aspect Ra	atio L/W			
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 - 99	100 - 199	200 & UP
0	0	0	0	0	0	0	0

TEM 7B (1994)

Analysis of Water by Transmission Electron Microscopy (EPA-600/4-83-043)

EMS No.	123466	Date Analyzed	9/2/2008
Client	Test America		
Sample No.	EMS BLANK		
Fibers (chryso	otile)	ND	MFL
> 5 Micron ler	ngth (chrysotile)	ND	MFL
Mass (chrysot	tile)	0	ug/L
More/Less that in Sample (ch		LESS	
Sensitivity Lev	/el	0.01	MFL

Particle Size Distribution (Chrysotile)

Particle Length - Microns

O -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 & UP
0	0	0	0	0	0
		Particle Width	- Microns		
O04	.0509	.114	.1519	.224	.25 & UP
0	0	0	0	0	0
		Aspect Rat	io L/W		
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 & UP
0	0	0	0	0	0

SUBCONTRACT ORDER

123466

TestAmerica Ontario CRH0933

SENDING LABORATORY:

TestAmerica Ontario 1014 E. Cooley Dr, Ste A Colton, CA 92324

Phone: (909) 370-4667 Fax: (909) 370-1046

Project Manager: Melissa Cunningham

RECEIVING LABORATORY:

EMS Laboratories-Sub 117 West Bellvue Drive Pasadena, CA 91105-2503 Phone :626-568-4065

Fax: 626-796-5282

Project Location: California

Receipt Temperature: 5 °C

Ice: Y / N

Analysis	Units	Due	Expires	Comments	
Sample ID: CRH0933-01	Water		Sampled: 08/25/08 0	8:30	~1
Asbestos By TEM-O	Present/No	Pri09/08/08	08/27/08 08:30	4144	
Containers Supplied: 1 Liter Poly (Z)					

Michael Losero 8-26-68 1030 Mate/Time 8-26-08 10:40
Received By Date/Time

Released By Date/Time

Received By

Date/Time

Page 1 of 1



ANALYTICAL REPORT

PROJECT NO. TA-C

TA-C

Lot #: F8H290240

TestAmerica - Ontario

TestAmerica - Ontario 1014 E. Cooley Dr Suite A Colton, CA 92324

TESTAMERICA LABORATORIES, INC.

Sherryl Adam

Project Manager

September 15, 2008

Case Narrative LOT NUMBER: F8H290240

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on August 29, 2008. This sample is associated with your TA-C project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted below.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Gross Alpha Method: 900.0 MOD

The Gross Alpha reporting limit was not met due to a reduction of sample size attributed to the sample's high residual mass. The analytical results are reported.

Affected Sample:

F8H290240 (1): CRH0933-01

METHODS SUMMARY

F8H290240

PARAME'	TER	ANALYTICAL METHOD	PREPARATION METHOD
Gross I	Alpha/Beta EPA 900	EPA 900.0 MOI	EPA 900.0
H-3 by	Distillation & LSC	EPA 906.0 MOI	
Radium	-228 by GFPC	EPA 904 MOD	
Total 1	Alpha Radium by GFPC	EPA 903.0 MOI)
Refere	nces:		
EPA	"EASTERN ENVIRONMENTAL RADIAT PROCEDURES MANUAL" US EPA EF		

SAMPLE SUMMARY

F8H290240

WO # 3	SAMPLE#	CLIENT SAMPLE ID		SAMP TIME
KV2WF	001	CRH0933-01	08/25/08	08:30
200.00.00				

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor,
 paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight:

TestAmerica Ontario Client Sample ID: CRH0933-01

Radiochemistry

Lab Sample ID: F8H290240-001

Date Collected: 08/25/08 0830

Work Order: KV2WF Matrix:

WATER

Date Received: 08/29/08 1315

			124

Parameter	Result	Qual	Uncert. (2 g+/-)	RL	MDC	Prep Date	Analysis Date
Gross Alpha/Beta	EPA 900		1	pCi/L	Batch	# 8246173	Yld %
Gross Alpha	2.1	U	5.3	3.0	9.5	09/02/08	09/07/08
Radium 228 by GF	PC EPA 904 MOD		1	pCi/L	Batch	# 8242348	Yld % 82
Radium 228	0.14	П	0.25	1.00	0.42	08/29/08	09/10/08
TRITIUM (Distill) by EPA 906.0	MOD	1	pCi/L	Batch	# 8246079	Yld %
Tritium	110	U	190	500	320	09/02/08	09/03/08
Total Alpha Radi	um EPA 903.0 M	OD	1	pCi/L	Batch	# 8242349	Yld % 101
Radium (total)	0.19	U	0.14	1.00	0.20	08/29/08	09/10/08

Data are incomplete without the case narrative.

MDC is determined by instrument performance only. Bold results are greater than the MDC

Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID:

F8H290240

Matrix:

WATER

Parameter	Result	Qual	Total Uncert. (2 g+/-)	RL	MDC		Prep Date	Lab Sample ID Analysis Date
Total Alpha Rad	lium EPA 903.0	MOD	pCi/L	Batch #	8242349	Yld %	94 F	8Н290000-349В
Radium (total)	0.10	Ü	0.11	1.00	0.16		08/29/08	09/10/08
Radium 228 by	GFPC EPA 904 M	OD	pCi/L	Batch #	8242348	Yld %	79 F	8Н290000-348В
Radium 228	0.08	U	0.23	1.00	0.40		08/29/08	09/10/08
Gross Alpha/Bet	a EPA 900		pCi/L	Batch #	8246173	Yld %	F	8I020000-173B
Gross Alpha	0.37	U	0.56	3.00	0.94		09/02/08	09/07/08
TRITIUM (Distil	.1) by EPA 906	.0 MOD	pCi/L	Batch #	8246079	Yld %	F	81020000-079B
Tritium	250	U	200	500	320		09/02/08	09/03/08

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only Bold results are greater than the MDC $\,$

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID:

F8H290240

Matrix:

WATER

			Total		Lab Sample ID			
Parameter	Spike Amount	Result	Uncert. (2 g+/-)	MDC	% Yld % Rec	QC Control Limits		
TRITIUM (Distill) by	EPA 906.0 MC	DD	pCi/L	906.0 MOD	F81	020000-079C		
Tritium	4920	5060	500	320	103	(67 - 111)		
	Batch #:	8246079		Analysis Date:	09/03/08			
Gross Alpha/Beta EPA	900		pCi/L	900.0 MOD	F8I	020000-173C		
Gross Alpha	49.4	45.4	5.3	1.1	92	(72 - 138)		
	Batch #:	8246173		Analysis Date:	09/07/08			

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id:

F8H280256

Matrix:

WATER

Date Sampled: 08/21/08

Date Received: 08/28/08

			2.74	Spike Sample Yld. Result			QC Sample ID		
Parameter	Spike Amount	Spike Result	Total Uncert. (2g+/-)			Total Uncert. (2 o +/-)	%YLD	%REC	QC Control Limits
Gross Alpha/Beta EPA 900			pCi/L	900	0.0 MOI		F8H280256-003		
Gross Alpha	83.1	76.7	9.9		4.0	2.1		87	(44 - 150)
	Batch #	8246173	An	alysis D	ate:	09/07/08			
TRITIUM (Distill) by EPA	906.0 M	OD	pCi/L	900	6.0 MOI		F	8Н290240	0-001
Tritium	4920	5070	500		110	190		101	(27 - 150)
	Batch #	8246079	An	alysis D	ate:	09/03/08			

NOTE (S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID:

F8H290240

Matrix:

WATER

					Total			Lab	Sample	ID
Parameter		Spike Amount	Uncert. Result $(2 \sigma +/-)$					QC Control Limits	Precision	
Total Alpha 1	Radium	EPA 903.0 MOD		pCi/L	903.0	0 MOD		F8H2	290000-	349C
Radium (total)	Spk 2	11.3 11.3	10.9		1.1	94 94	97 96	(71 - 125) (71 - 125)	0.6	%RPD
	Batch #:	8242349			Analysi	s Date:	09/10/08			
Radium 228 by	y GFPC	EPA 904 MOD		pCi/L	904 1	MOD		F8H2	290000-	348C
Radium 228	Spk 2	7.65 7.65	8.71 8.43		0.96 0.92	81 85	114 110	(61 - 139) (61 - 139)	3	%RPD
		Batch #:	8242348			Analysi	s Date:	09/10/08		

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F8H290240

Matrix:

WATER

Date Sampled:

08/21/08

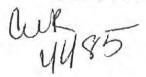
Date Received: 08/28/08

Parameter	SAMPI Resul		Tota1 Uncert. (2 \sigma +/-)	% Yld	DUPLICATE Result	Total Uncert. (2 σ +/-)	% Yld	QC Sample ID Precisi	on
Gross Alpha/Beta EPA	900			pCi/L	900.0 N	IOD		F8H280256-00	3
Gross Alpha	4.0		2.1		2.7 U	2.0		42	%RPD
		Batch #:	8246173	(Sample)	8246173	(Duplicate)			
TRITIUM (Distill) by	EPA	906.0 MOD)	pCi/L	906.0 N	IOD		F8H290219-00	1
Pritium	5210		500		5070	480		3	%RPD
		Batch #:	8246079	(Sample)	8246079	(Duplicate)			

NOTE (S)

Data are incomplete without the case narrative. Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.



SUBCONTRACT ORDER

TestAmerica Ontario CRH0933

OFNIDING	I ADODATODY:	
SENDING	LABORATORY:	

TestAmerica Ontario 1014 E. Cooley Dr, Ste A Colton, CA 92324

Phone: (909) 370-4667 Fax: (909) 370-1046

Project Manager: Melissa Cunningham

Client: Layne Christensen

RECEIVING LABORATORY:

TestAmerica St. Louis 13715 Rider Trail North Earth City, MO 63045 Phone: (314) 298-8566

Fax: xxx

Project Location: California

Receipt Temperature:

Ice: Y / N

°C

Analysis	Units	Due	Expires	Interlab Pri	ce Surch	Comments	3
Sample ID: CRH0933-01	Water		Sampled	: 08/25/08 0	08:30		
Gross Alpha-O	pCi/L	09/08/08	08/25/09 08:30	\$50.	00 0%		
Radium 226-O	pCi/L	09/08/08	08/25/09 08:30	\$120.	00 0%		
Radium 228-O	pCi/L	09/08/08	08/25/09 08:30	\$180.	00 0%		
Tritium-O	pCi/L	09/08/08	08/25/09 08:30	\$70.	00 0%		
Containers Supplied:							
500 mL poly w/ Nitric Acid (AA)	500 mL poly wa Acid (AB)	/ Nitric	500 mL poly w/ l Acid (AC)		0 mL poly cid (AD)	w/ Nitric	500 mL poly w/ Nitric Acid (AE)
500 mL poly w/ Nitric Acid (AF)	1 Liter Poly w/ Acid (AK)	Nitric	500 mL Glass (A	AO)			

Chuly M 8/24/08 1405

Released By Date/Time

Received By

729.08 13:15

Date/Time

Sample Integrity: Temp:

On Ice:

Inlact

CONJUNE HAIR

Malissa

TTN

Remarks:

TW - Treated Water (Point of Entry)

FAX (858) 505-9609 FAX (480) 785-0851 FAX (702) 798-3621 EAX (909) 370-1046 7 day FAX (949) 261-1228 END: 23.8 Surcharges may be applied for Turnaround Time": (check one) remaining hold time <48 hours Manganese Magneslum □ Nickel
□ Potassium
□ Selenium
□ Selenium
□ Silver
□ Sodium
□ Thallium
□ Zinc
□ other. 48 hours Immediate ☐ Mercury of Page 1 24 Hours 02 72 Hours SH: 6:45 Normal □ Aluminum
□ Artimony
□ Arsenic
□ Barium
□ Beryillum
□ Boron
□ Cadmium
□ Cadmium ☐ Chromium ☐ Copper ☐ Iron ☐ Lead (858) 505-9596 (480) 785-0043 (702) 798-3620 949) 261-1022 909) 370-4687 27-1643 8-25-08/085 9 Date/Time; Date/Time: Date/Time: PWS ID# Kowich POE #: 0 9484 Chesapeake Dr., Ste. 805, San Djego, CA 92123 9830 South 51st, Suite B-120, Phoenix, AZ 85044 2520 East Sunset, #3, Las Vegas, NV 89120 1014 East Cooley Drive, Suite A, Colton, CA 92324 Yes 2852 Alton Avenue, Irvine, CA 92606. (5)/ 1 11/65 JACI CA Samples acidified after dechlorination? 25 S 2 norganic Chemicals (see fee schedule) P.O./Project Name://qxpぞん Project Manager: Victor General Physical (see fee schedule) DRINKING WATER CHAIN OF CUSTODY FORM Compliance Sample: Yes General Minerals (see tee schedule) Yes (PWS ID required) Metals (Specify) 0 Heterotrophic Plate Count (HPC) Received in Lab by: Coliform, Total 🗖 Fecal 🗖 Received by:/ Received by: S.643 Jeupened / JeupiG Endothall 548.1 25-08/1146 Date/Time: 8/0855 Glyphosata 547 390-6047 Data to state's database? Date/Time; Date/Time: 1,158 aslamadias Chlorinated Acids 515.3 8-72-08 9233 Providing Quality Environmental Laboratory Services Pesticides and PCBs 505 🗆 508.1 EDB / DBCP / TCP 504.1 Semivolatiles Reg. ☐ UnReg. ☐ 525.2. COPIDAN Zip: Trihalomethanes Only 524,2 **Del MarAnalytical** 2 Volatiles Reg.

D. DaRnU D. Des Reg.

D. S. A. Number of Containers State: Zi vii ChrisTENSEL 0830 telinquished by: BMIT. Relinquished by Relinquished 505 3/15 Date Sampled Fr. warda Fax:/ 30 (sidsT xhisM see) xhish Sampler(s) Name & Signature: Tel:/505 350-2833 AYNO RYKEN-WEIT-SZ RW - Raw Water (Source) Address: (100/ Sample I.D. RW - Recreational Water City: FONTANA DW - Drinking Water SW - Surface Water GW - Groundwater Matrix Types Client Name:

00



	Pausa	1		
Lot #(s):	(+ OH, 290	240)		
- 4485 -		941,	-	
		aru		

ote No: 75	Acio COC/RFA No: CRH Initiated By:	AB	Time: /3/)
	Ship	ping Information	
pper Name: H	2		Multiple Packages Y (N) Sample Temperature (s):**
ipping # (s): \$ 26	61313 10017014 6.	_	1. <u>Amb.ext</u> 6.
	7		
			4. 9.
	10.	tan In west his sound	5, 10, vcd at 4°C ± 2°C- If not, note contents below. Temperature
	correspond to Numbered Sample Temp lines	variance does NOT affe	et the following: Metals-Liquid or Rad tests-Liquid or Solids
ondition (Circle "Y"	for yes, "N" for no and "N/A" for not applicable): Are there custody seals present on	1	1 1 1 1 1 1 1 1
YN	the cooler?	8. YN	Are there custody seals present on bottles?
Y N NA	Do custody seals on cooler appear to be tampered with?	9. Y N (VA)	Do custody seals on bottles appear to be tampered with?
Ø N	Were contents of cooler frisked after opening, but before unpacking?	10. Y N WA	Was sample received with proper pH1? (If not, make note below)
QN	Sample received with Chain of Custody?	11. O N	If N/A- Was pH taken by original TestAmerica lab?
N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12, (Y) N	Sample received in proper containers? Headspace in VOA or TOX liquid samples? (If
Y	Was sample received broken?	13. Y N N/A	Yes, note sample ID's below)
(Y) N	Is sample volume sufficient for analysis?	14. (Y) N	Was Internal COM/Workshare received?
For DOE-AL (Pantex, L	ANL, Sandia) sites, pH of ALL containers receive	ed must be verified, EXCEPT	T VOA, TOX and soils.
lotes:			
Corrective Action:			
Corrective Action: Client Contact Sample(s) proc	Name:	Informed by:	



September 4, 2008

TestAmerica Project Number: G8H270279

PO/Contract: CRH0933

Melissa Cunningham TestAmerica Analytical Testing 1014 E Cooley Drive, Suite A Colton, CA 92324

Dear Ms. Cunningham,

This report contains the analytical results for the sample received under chain of custody by TestAmerica on August 27, 2008. This sample is associated with your CRH0933 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4383.

Sincerely,

David R. Alltucker Project Manager

Table of Contents

TestAmerica West Sacramento Project Number G8H270279

Case Narrative

Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

WATER, 1613B, 2,3,7,8-TCDD

Sample: 1

Sample Data Sheet Method Blank Report Laboratory QC Reports

Case Narrative TestAmerica West Sacramento Project Number G8H270279

There were no anomalies associated with this project.





TestAmerica Laboratories West Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	New York*	11666
Arizona	AZ0616	Oregon*	CA 200005
Arkansas	04-067-0	Pennsylvania	68-1272
California*	01119CA	South Carolina	87014002
Colorado	NA	Texas	TX 270-2004A
Connecticut	PH-0691	Utah*	QUANI
Florida*	E87570	Virginia	00178
Georgia	960	Washington	C087
Hawaii	NA	West Virginia	9930C, 334
Kansas*	E10375	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613

^{*}NELAP accredited. A more detailed parameter list is available upon request. Updated 9/21/07

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G8H270279

WO# Sample # Client Sample ID CRH0933-01

Sampling Date 8/25/2008 08:30 AM Received Date 8/27/2008 09:30 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SUBCONTRACT ORDER

TestAmerica Ontario CRH0933

SENDING LABORATORY:

TestAmerica Ontario 1014 E. Cooley Dr. Ste A Colton, CA 92324

Phone: (909) 370-4667 Fax: (909) 370-1046

Project Manager: Melissa Cunningham

Client: Layne Christensen

RECEIVING LABORATORY:

TestAmerica West Sacramento

880 Riverside Parkway

West Sacramento, CA 95605 Phone: (916) 373-5600

Fax: (916) 372-7768 Project Location: California

Receipt Temperature:

Ice:

Analysis

Units

Due

09/08/08

Expires

Interlab Price Surch

Comments

Sample ID: CRH0933-01

1613B - 2,3,7,8-TCDD CA D pg/l

Water

Sampled: 08/25/08 08:30 08/25/09 08:30

\$220.00

0%

Containers Supplied:

1 L Amber (AM)

1 L Amber (AN)

Palle 8/26/08

Date/Time

Sta 7/68- 0950 Page 1 of 15

B81276279By

Date/TipestAmerica West Sacraffie (946) 373 - 5600

FAX (858) 505-9689 FAX (480) 785-0851 FAX (702) 798-3621 EAX (909) 370-1046. Erro: 23.8 FAX (949) 261-1228 ☐ Magnesium ☐ Manganese ☐ Nickel ☐ Potassium ☐ Selenium ☐ Silver ☐ Sodium □ Vanadíum D Thallium ☐ Mercury other: of D Zinc 0 Page (20 SH: 6:45 □ Aluminum
□ Antimony
□ Arsenic
□ Barlum
□ Beryllum
□ Boron
□ Cadmium
□ Calcum
□ Chromium (480) 785-0043 (702) 798-3620 Lead (858) 505-9596 (949) 261-1022 Iron D 909) 370-4667 191-3 PWS ID# JACKOWAL 0 POE #: 9830 South 51st, Suite B-120, Phoenix, AZ 85044 2520 East Sunset, #3, Las Vegas, NV 89120 Yes 2852 Alton Avenue, Irvine, CA 92606 1014 East Cooley Drive, Sulle A, Colton, CA 92324 9484 Chesapeake Dr., Ste. 805, San Diego, CA 92123 1 I Samples acidified after dechlorination? 5 o å norganic Chemicals (see fee schedule) P.O./Project Name: // App En VICTOR General Physical (see fee schedule) DRINKING WATER CHAIN OF CUSTODY FORM Compliance Sample: Yes General Minerals (see fee schedule) Yes (PWS ID required) Metals (Specify) Project Manager; Heterotrophic Plate Count (HPC) Fecal | Coliform, Total C S.eps Jeupered / JeupiG F.843 lisatiobria Slyphosate 547 390-6,047 Data to state's database? Carbamates 531.1 Chlorinated Acids 515.3 33 Providing Quality Environmental Laboratory Services Pesticides and PCBs 505 🗆 508,1 🗖 26 EDB / DBCP / TCP 504.1 Semivolatiles Reg.

UnReg.

525.2. LUCICOS Zip: Z.4.Sè yinO sensitemolathT Del MarAnalytical Volatiles Reg. ☐ UnReg. ☐ 524.2 70 Number of Containers State: 0830 Christensen 9ШП 505 Data Sampled 下でいかのころろ Fax:/ 3 (sidsT xintsM see) xintsM Sampler(s) Name & Signature: Tel: (905) 350-2833 AYNE Sample I.D. 1001 102 TALA RYKEN-WEll Client Name: Address: City:

Payment for services is due within 30 days from the date of the involce. Sample(s) will be disposed of after 30 days. All work is subject to Del Mar Analytical's terms and conditions unless previously agreed to in writing. On Ice: Inlact: L Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. - UNDINKHAN WE11559

7 day

48 hours Immediate

72 Hours

Date/Fime: Date/Time:

SS

Received in Lab by:

Received by:

25-08/1146

Date/Time:

Refinquished by:

RW - Raw Water (Source)

DW - Drinking Water SW - Surface Water

Matrix Types

Remarks:

TW - Treated Water (Point of Entry)

RW - Recreational Water

GW - Groundwater

Relinquished by

Relinquishage

Received by:

Date/Time: Date/Time;

10855

300

8-25-

logs Normal

24 Hours

Turnaround Time*: (check one)

Date/Time 80-52-08 *Surcharges may be applied for

remaining hold time <48 hours.

Temp:

Sample Integrity:





LOT RECEIPT CHECKLIST TestAmerica West Sacramento

CLIENT	THE ontario PM DA LOG# 53835
LOT# (QUANTIMS ID	984270279 QUOTE# 74020 LOCATION W78
DATE RECEIVED	8/2768 TIME RECEIVED 0930 Initials Date 8/2769
DELIVERED BY CUSTODY SEAL STA	☐ FEDEX ☐ CA OVERNIGHT ☐ CLIENT ☐ AIRBORNE ☐ GOLDENSTATE ☐ DHL ☐ UPS ☐ BAX GLOBAL ☐ GO-GETTERS ☐ TAL COURIER ☐ VALLEY LOGISTICS ☐ MORGAN HILL COURIER ☐ OTHER ☐ OTHER ☐ INTACT ☐ BROKEN ☑ N/A
CUSTODY SEAL #(S)	
SHIPPPING CONTAIL	NER(S) TAL CLIENT N/A
TEMPERTURE RECO	
COC #(S)	Ma .
TEMPERATURE BLA	
SAMPLE TEMPERAT	
Observed: /	/ Average: / Corrected Average: 2
COLLECTOR'S NAM	E: Verified from COC Not on COC
pH MEASURED	☐ YES ☐ ANOMALY ☐ N/A
A CHARLES OF SHIPS AND A SHIPS AND	
LABELS CHECKED E	NA NA
SHORT HOLD TEST	NOTIFICATION SAMPLE RECEIVING WETCHEM N/A VOA-ENCORES N/A
☐ METALS NOTIFIE	D OF FILTER/PRESERVE VIA VERBAL & EMAIL N/A
COMPLETE SHIP APPROPRIATE T	MENT RECEIVED IN GOOD CONDITION WITH EMPERATURES, CONTAINERS, PRESERVATIVES
CLOUSEAU	☐ TEMPERATURE EXCEEDED (2 °C − 6 °C) N/A
	☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED
WET ICE Notes:	

^{*1} Acceptable temperature range for State of Wisconsin samples is ≤4°C. LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE.

TestAmerica West Sacramento TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: <u>G811270279</u>

1/0.44	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*	/	/	/	/	/	/	/	/	/	/	/	/ ,	/	/	/	/	/-,	/	/,	/
VOAh*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
AGB	2											_				-				
AGBs						<u> </u>								1						_
250AGB							<u></u>			-			2 2 1							
250AGBs																-				
250AGBn												1				<u> </u>				
500AGB																				
AGJ																				
500AGJ																	1.1.1			
250AGJ																				
125AGJ																				
CGJ																				
500CGJ																				
250CGJ																				
125CGJ																				
PJ													- 1							
PJn				Lel I	111			3-1												
500PJ ·																				
500PJn																				
500PJna				Inii						ŽI I										-
500PJzn/na																				
250PJ																				
250PJn																				
250PJna														,						
250PJzn/na																				
Acetate Tube																				
"CT			4																	
Encore																				1
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap													T. L							
Ziploc																				
= hydrochlor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Number of VOAs with air bubbles present / total number of VOA's

QA-185 5/05 EM

Page 3

WATER, 1613B, 2,3,7,8-TCDD

TestAmerica Ontario

Client Sample ID: CRH0933-01

Trace Level Organic Compounds

Lot-Sample #...: G8H270279-001 Work Order #...: KVWQF1AA Matrix..... WATER

Date Sampled...: 08/25/08 Date Received..: 08/27/08
Prep Date....: 08/29/08 Analysis Date..: 09/03/08

Prep Batch #...: 8242295

Dilution Factor: 1

PARAMETER	RESULT	DETECTION	UNITS	METHOD
2,3,7,8-TCDD	ND	5.0	pg/L	EPA-5 1613B-Tetra
	PERCENT	RECOVERY		
INTERNAL STANDARDS	RECOVERY	LIMITS		
13C-2,3,7,8-TCDD	50	(25 - 141)		

QC DATA ASSOCIATION SUMMARY

G8H270279

Sample Preparation and Analysis Control Numbers

		ANALYTICAL	LEACH	PREP	
SAMPLE#	MATRIX	METHOD	BATCH #	BATCH #	MS RUN#
001	WATER	EPA-5 1613B-Tetra		8242295	

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: G8H270279 Work Order #...: KV2MF1AA Matrix.....: WATER

MB Lot-Sample #: G8H290000-295

Prep Date....: 08/29/08 Prep Batch #...: 8242295

Analysis Date..: 09/03/08

Dilution Factor: 1

DETECTION
RESULT LIMIT UNITS METHOD

PARAMETER RESULT LIMIT UNITS METHOD

2,3,7,8-TCDD ND 5.0 pg/L EPA-5 1613B-Tetra

 PERCENT
 RECOVERY

 INTERNAL STANDARDS
 RECOVERY
 LIMITS

 13C-2,3,7,8-TCDD
 50
 (25 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: G8H270279 Work Order #...: KV2MF1AC Matrix..... WATER

LCS Lot-Sample#: G8H290000-295

Prep Date....: 08/29/08 Analysis Date..: 09/03/08

Prep Batch # ...: 8242295

Dilution Factor: 1

SPIKE MEASURED PERCENT
PARAMETER AMOUNT AMOUNT UNITS RECOVERY METHOD

2,3,7,8-TCDD 200 164 pg/L 82 RPA-5 1613B-T

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results,

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: G8H270279 Work Order #...: KV2MF1AC Matrix..... WATER

LCS Lot-Sample#: G8H290000-295

Prep Date....: 08/29/08 Analysis Date..: 09/03/08

Prep Batch #...: 8242295

Dilution Factor: 1

PERCENT RECOVERY

 PARAMETER
 RECOVERY
 LIMITS
 METHOD

 2,3,7,8-TCDD
 82
 (73 - 146)
 EPA-5 1613B-Tetras

PERCENT RECOVERY
INTERNAL STANDARD RECOVERY LIMITS

<u>INTERNAL STANDARD</u>

13C-2,3,7,8-TCDD

RECOVERY

49

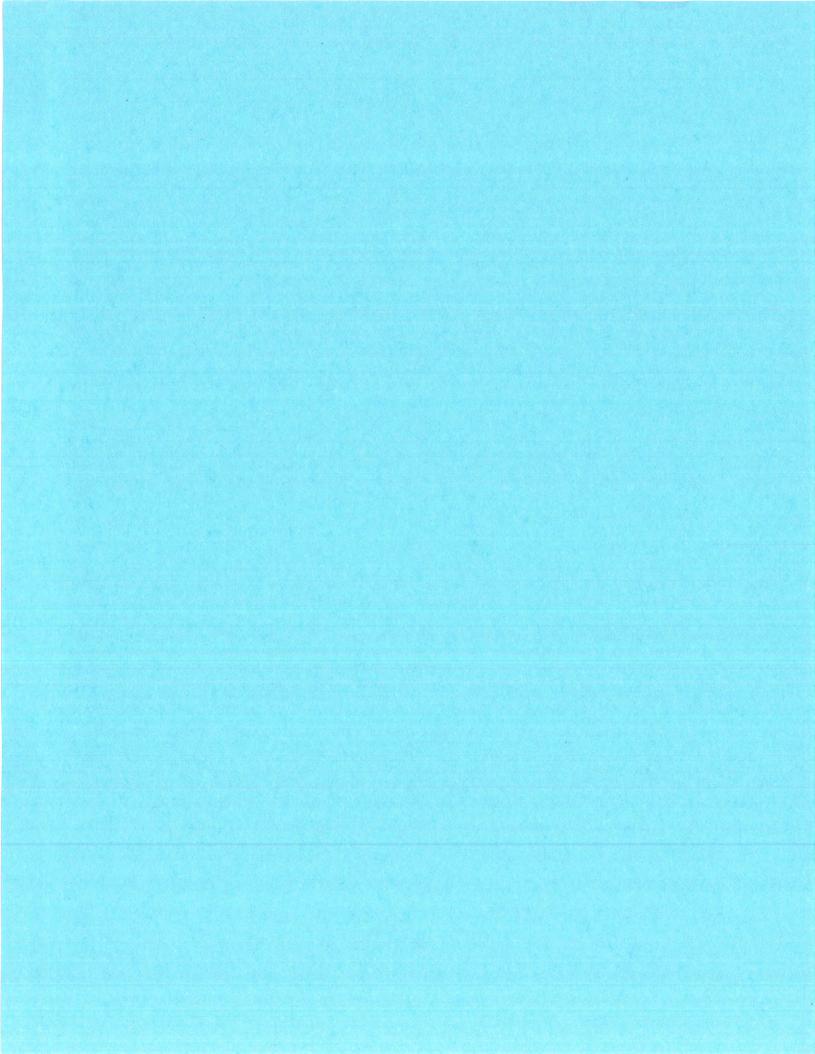
LIMITS

(25 - 141)

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters







LABORATORY REPORT

Prepared For: Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337

Attention: Tony Morgan

Project: Riverside Well Harper Lake

Sampled: 11/26/08 Received: 11/26/08

Issued: 12/04/08 16:01

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 2°C, on ice and with chain of custody documentation.

HOLDING TIMES: Not all holding times were met. Results were qualified where the sample analysis did not occur within

method specified holding time requirements.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID CLIENT ID MATRIX
CRK1051-01 Ryken Well S3 Water

Reviewed By:

Molisso Cominghose

TestAmerica Ontario

Melissa Cunningham Project Manager



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well Harper Lake

Report Number: CRK1051

Sampled: 11/26/08 Received: 11/26/08

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK1051-01 (Ryken Well S	3 - Water)							pH
Reporting Units: Color Units								
Color	SM2120B	C8K2708	1	ND	1	11/27/2008	11/27/2008	



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Sampled: 11/26/08

Received: 11/26/08

Layne Christensen 11001 Etiwanda Avenue

Harper Lake Report Number: CRK1051

Fontana, CA 92337 Attention: Tony Morgan

METALS

Project ID: Riverside Well

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK1051-01 (Ryken Well S	3 - Water)							
Reporting Units: mg/l								
Silicon	EPA 6010B	8L02130	0.050	20	1	12/2/2008	12/3/2008	
Strontium	EPA 200.7	8L02125	0.020	2.5	1	12/2/2008	12/3/2008	
Mercury	EPA 245.1	8L03062	0.00020	ND	U	12/3/2008	12/3/2008	
Sample ID: CRK1051-01 (Ryken Well S	3 - Water)							
Reporting Units: mg/l as Silica								
Silicon	EPA 200.7	8L02125	0.11	43	1	12/2/2008	12/3/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: Riverside Well
11001 Etiwanda Avenue Harper Lake

 ue
 Harper Lake
 Sampled: 11/26/08

 Report Number: CRK1051
 Received: 11/26/08

Attention: Tony Morgan

Fontana, CA 92337

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK1051-01 (Ryken Wo	ell S3 - Water)						*****	× 1000000000000000000000000000000000000
Reporting Units: mg/l								
Carbon Dioxide	SM4500-CO2 C	8L01066	2.0	3.5	1	11/28/2008	11/28/2008	HFT
Chromium VI	EPA 218.6	8K26129	0.0010	0.0035	1	11/26/2008	11/26/2008	
Ammonia-N	EPA 350.3	8L02142	0.50	ND	1	12/2/2008	12/2/2008	
Biochemical Oxygen Demand	SM5210B	8K28050	2.0	ND	1	11/28/2008	12/3/2008	
Ferrous Iron	SM 3500-Fe D	8K27005	0.10	ND	1	11/27/2008	11/27/2008	HFT
Phosphate (PO4)	EPA 365.3	8L02120	0.15	0.18	1	12/2/2008	12/2/2008	
Sulfate	EPA 300.0	8K28058	10	410	20	11/28/2008	11/28/2008	
Total Organic Carbon	SM5310C	8K28064	0.10	0.76	1	11/28/2008	11/28/2008	
Total Suspended Solids	SM 2540D	8L01133	10	ND	1	12/1/2008	12/1/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: Riverside Well

11001 Etiwanda AvenueHarper LakeSampled: 11/26/08Fontana, CA 92337Report Number: CRK1051Received: 11/26/08

Attention: Tony Morgan

Layne Christensen

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Ryken Well S3 (CRK	1051-01) - Water				
EPA 218.6	1	11/26/2008 09:08	11/26/2008 14:03	11/26/2008 21:25	11/26/2008 21:25
SM 3500-Fe D	1	11/26/2008 09:08	11/26/2008 14:03	11/27/2008 10:45	11/27/2008 11:00
SM2120B	2	11/26/2008 09:08	11/26/2008 14:03	11/27/2008 10:15	11/27/2008 10:15
SM4500-CO2 C	1	11/26/2008 09:08	11/26/2008 14:03	11/28/2008 11:30	11/28/2008 11:30
SM5210B	2	11/26/2008 09:08	11/26/2008 14:03	11/28/2008 08:18	12/03/2008 09:30



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well Harper Lake Report Number: CRK1051

Sampled: 11/26/08 Received: 11/26/08

METHOD BLANK/QC DATA

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K2708 Extracte	d: 11/27/08									
Duplicate Analyzed: 11/27	/2008 (C8K2708-DUP1)				Source: (CRK1033-	01			рН
Color	ND	.1	Color Units		ND				20	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well

Harper Lake

Report Number: CRK1051

Sampled: 11/26/08 Received: 11/26/08

METHOD BLANK/QC DATA

METALS

		Reportin	g	Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8L02125 Extracted: 12/02/08										
Blank Analyzed: 12/03/2008 (8L02125-	BLK1)									
Silicon	ND	0.11	mg/l as Silica							
Strontium	ND	0.020	mg/l							
LCS Analyzed: 12/03/2008 (8L02125-B	S1)									
Silicon	5,04	0.11	mg/l as Silica	5.35		94	85-115			
Strontium	0.494	0.020	mg/l	0.500		99	85-115			
Matrix Spike Analyzed: 12/03/2008 (8L	.02125-MS1)				Source: C	RK1051-	01			
Silicon	47.6	0.11	mg/l as Silica	5.35	43.0	86	70-130			
Strontium	2.98	0.020	mg/I	0.500	2.46	105	70-130			
Matrix Spike Dup Analyzed: 12/03/2009	8 (8L02125-M	SD1)			Source: C	RK1051-	01			
Silicon	48.4	0.11	mg/l as Silica	5.35	43.0	100	70-130	2	20	
Strontium	3.02	0.020	mg/l	0.500	2.46	112	70-130	1	20	
Batch: 8L02130 Extracted: 12/02/08										
Blank Analyzed: 12/03/2008 (8L02130-1	BLK1)									
Silicon	ND	0.050	mg/l							
LCS Analyzed: 12/03/2008 (8L02130-B	S1)									
Silicon	4.78	0.050	mg/l	5.00		96	80-120			
Matrix Spike Analyzed: 12/03/2008 (8L	02130-MS1)				Source: I	RK2476-0	IREI			
Silicon	112	0.050	mg/l	5.00	6.82	88	75-125			
Matrix Spike Dup Analyzed: 12/03/2008	8 (8L02130-M	SD1)			Source: Il	RK2476-0	1RE1			
Silicon	11.1	0.050	mg/l	5.00	6.82	87	75-125	1	20	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well

Harper Lake

Report Number: CRK1051

Sampled: 11/26/08 Received: 11/26/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8L03062 Extracted: 12/03/08										
Blank Analyzed: 12/03/2008 (8L03062	-BLK1)									
Mercury	ND	0.00020	mg/l							
LCS Analyzed: 12/03/2008 (8L03062-I	BS1)									
Mercury	0.00810	0.00020	mg/l	0.00800		101	85-115			
Matrix Spike Analyzed: 12/03/2008 (8)	L03062-MS1)				Source: I	RL0153-0	1			
Mercury	0.00824	0.00020	mg/l	0.00800	0.000665	95	70-130			
Matrix Spike Dup Analyzed: 12/03/200	08 (8L03062-N	ISD1)			Source: Il	RL0153-0	1			
Mercury	0.00828	0.00020	mg/l	0.00800	0.000665	95	70-130	1	20	



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well

Harper Lake

Report Number: CRK1051

Sampled: 11/26/08

Received: 11/26/08

METHOD BLANK/QC DATA

Assaulter	D Is	Reporting	***	Spike	Source	A/DEC	%REC	DDD	RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K26129 Extracted: 11/26/08										
Blank Analyzed: 11/26/2008 (8K26129-	-BLK1)									
Chromium VI	ND	0.0010	mg/l							
LCS Analyzed: 11/26/2008 (8K26129-E	BS1)									
Chromium VI	0.0480	0.0010	mg/l	0.0500		96	90-110			
Matrix Spike Analyzed: 11/26/2008 (8F	(26129-MS1)				Source: C	RK1051-	01			
Chromium VI	0.0568	0.0010	mg/l	0.0500	0.00354	107	90-110			
Matrix Spike Dup Analyzed: 11/26/200	8 (8K26129-N	(ISD1)			Source: C	RK1051-	01			
Chromium VI	0.0543	0.0010	mg/l	0.0500	0.00354	102	90-110	5	10	
Batch: 8K27005 Extracted: 11/27/08										
Blank Analyzed: 11/27/2008 (8K27005-	BLK1)									
Ferrous Iron	ND	0.10	mg/l							
LCS Analyzed: 11/27/2008 (8K27005-B	SS1)									
Ferrous Iron	5,00	0.10	mg/l	5.00		100	80-120			
Duplicate Analyzed: 11/27/2008 (8K270	005-DUP1)				Source: C	RK1051-	01			
Ferrous Iron	ND	0.10	mg/I		ND				20	HFT
Batch: 8K28050 Extracted: 11/28/08										
Blank Analyzed: 12/03/2008 (8K28050-	BLK1)									
Biochemical Oxygen Demand	ND	2.0	mg/l							



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well

Harper Lake

Report Number: CRK1051

Sampled: 11/26/08 Received: 11/26/08

METHOD BLANK/QC DATA

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K28050 Extracted: 11/28/08										
LCS Analyzed: 12/03/2008 (8K28050-B	SS1)									
Biochemical Oxygen Demand	204	100	mg/l	198		103	85-115			
LCS Dup Analyzed: 12/03/2008 (8K280	050-BSD1)									
Biochemical Oxygen Demand	204	100	mg/l	198		103	85-115	0	20	
Batch: 8K28058 Extracted: 11/28/08										
Blank Analyzed: 11/28/2008 (8K28058-	BLK1)									
Sulfate	ND	0,50	mg/l							
LCS Analyzed: 11/28/2008 (8K28058-B	S1)									
Sulfate	10,5	0.50	mg/l	10.0		105	90-110			M-3
Matrix Spike Analyzed: 11/28/2008 (8K	(28058-MS1)				Source: I	RK2841-0	1			
Sulfate	106	5.0	mg/L	100	2.35	104	80-120			
Matrix Spike Dup Analyzed: 11/28/200	8 (8K28058-A	ISD1)			Source: Il	RK2841-0	1			
Sulfate	108	5.0.	mg/l	100	2.35	105	80-120	Ĩ.	20	
Batch: 8K28064 Extracted: 11/28/08										
Blank Analyzed: 11/28/2008 (8K28064-	BLK1)									
Total Organic Carbon	ND	0.10	mg/l							
LCS Analyzed: 11/28/2008 (8K28064-B	S1)									
Total Organic Carbon	9.83	0.10	mg/l	10.0.		-98	90-110			



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well

Harper Lake

Report Number: CRK1051

Sampled: 11/26/08

Received: 11/26/08

METHOD BLANK/QC DATA

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K28064 Extracted: 11/28/03	8_									
Matrix Spike Analyzed: 11/28/2008	(8K28064-MS1)				Source: I	RK2509-0	1			
Total Organic Carbon	11/1	0.10	mg/I	10.0	0.426	107	80-120			
Matrix Spike Dup Analyzed: 11/28/2	2008 (8K28064-M	ISD1)			Source: 1	RK2509-0	1			
Total Organic Carbon	11:1	0.10	mg/l	10.0	0.426	106	80-120	1	20	
Batch: 8L01066 Extracted: 11/28/08	<u>1</u>									
Duplicate Analyzed: 11/28/2008 (8L0	01066-DUP1)				Source: C	RK1051-	01			
Carbon Dioxide	3.52	2.0	mg/l		3.52			0	20	HFT
Batch: 8L01133 Extracted: 12/01/08	L									
Blank Analyzed: 12/01/2008 (8L0113	33-BLK1)									
Total Suspended Solids	ND	10	mg/I							
LCS Analyzed: 12/01/2008 (8L01133	-BS1)									
Total Suspended Solids	993	10	mg/l	1000		99	85-115			
Duplicate Analyzed: 12/01/2008 (8L0)1133-DUP1)				Source: I	RK2766-0	1			
Total Suspended Solids	35.0	10	mg/l		35.0			0	10	
Batch: 8L02120 Extracted: 12/02/08										
Blank Analyzed: 12/02/2008 (8L0212	0-BLK1)									
Phosphate (PO4)	ND	0.075	mg/l							



1014 E. Cooley Dr, Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well

Harper Lake

Report Number: CRK1051

Sampled: 11/26/08 Received: 11/26/08

METHOD BLANK/QC DATA

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8L02120 Extracted: 12/02/08										
LCS Analyzed: 12/02/2008 (8L02120-BS	61)									
Phosphate (PO4)	1.61	0.075	mg/l	1.54		105	80-120			
Matrix Spike Analyzed: 12/02/2008 (8L0	02120-MS1)				Source: I	RK2241-0	1			
Phosphate (PO4)	2.99	0.15	mg/l	3.07	0.222	90	75-125			
Matrix Spike Dup Analyzed: 12/02/2008	(8L02120-N	(ISD1)			Source: I	RK2241-0	1			
Phosphate (PO4)	2.87	0.15	mg/l	3.07	0.222	86	75-125	4	20	
Batch: 8L02142 Extracted: 12/02/08										
Blank Analyzed: 12/02/2008 (8L02142-B	BLK1)									
Ammonia-N	ND	0.50	mg/l							
LCS Analyzed: 12/02/2008 (8L02142-BS	(1)									
Ammonia-N	1.04	0.50	mg/l	1.00		104	85-115			
Matrix Spike Analyzed: 12/02/2008 (8L0	02142-MS1)				Source: I	RK2373-0	8			
Ammonia-N	1.99	0.50	mg/l	2.00	ND	100	75-125			
Matrix Spike Dup Analyzed: 12/02/2008	(8L02142-N	ISD1)			Source: Il	RK2373-0	8			
Ammonia-N	1.99	0.50	mg/I	2.00	ND	100	75-125	0	15	



1014 E. Cooley Dr, Ste A., Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: Riverside Well 11001 Etiwanda Avenue Harper Lake

| Harper Lake | Sampled: 11/26/08 | Report Number: CRK1051 | Received: 11/26/08 |

Attention: Tony Morgan

Fontana, CA 92337

DATA QUALIFIERS AND DEFINITIONS

The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
 Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was

accepted based on acceptable recovery in the Blank Spike (LCS).

pH pH = 7.5

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference



1014 E. Cooley Dr. Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Riverside Well

Harper Lake

Report Number: CRK1051

Sampled: 11/26/08 Received: 11/26/08

Certification Summary

TestAmerica Ontario

Method Matrix Nelac California

SM2120B Water N/A N/A

Subcontracted Laboratories



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Sampled: 11/26/08

Received: 11/26/08

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Project ID: Riverside Well Harper Lake

Report Number: CRK1051

Attention: Tony Morgan

TestAmerica - Irvine, CA Nelac Cert #01108CA, California Cert #1197, Arizona Cert #AZ0671, Nevada Cert #CA-72

17461 Derian Avenue. Suite 100 - Irvine, CA 92614

Method Performed: EPA 200.7 Samples: CRK1051-01

Method Performed: EPA 218.6 Samples: CRK1051-01

Method Performed: EPA 245.1 Samples: CRK1051-01

Method Performed: EPA 300.0 Samples: CRK1051-01

Method Performed: EPA 350.3 Samples: CRK1051-01

Method Performed: EPA 365.3 Samples: CRK1051-01

Method Performed: EPA 6010B Samples: CRK1051-01

Method Performed: SM 2540D Samples: CRK1051-01

Method Performed: SM 3500-Fe D Samples: CRK1051-01

Method Performed: SM4500-CO2 C Samples: CRK1051-01

Method Performed: SM5210B Samples: CRK1051-01

Method Performed: SM5310C Samples: CRK1051-01

SUBCONTRACT ORDER

TestAmerica Ontario CRK1051

SENDING LABORATORY:

TestAmerica Ontario

1014 E. Cooley Dr, Ste A

Colton, CA 92324

Phone: (909) 370-4667

Fax: (909) 370-1046

Project Manager: Melissa Cunningham

Client: Layne Christensen

RECEIVING LABORATORY:

TestAmerica Irvine

17461 Derian Avenue, Suite 100

Irvine, CA 92614

Phone: (949) 261-1022

Fax: (949) 261-1228

Project Location: CA - CALIFORNIA

°C

Receipt Temperature:

Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price S	urch	Comment	s
Sample ID: CRK1051-01	Water		Sampled	11/26/08 13:05			
Ammonia-N, ISE 350.3 - Ou	it mg/l	12/04/08	12/24/08 13:05		25%		
BOD - Out	mg/l	12/04/08	11/28/08 13:05	\$65.00	25%		
Carbon Dioxide	mg/l	12/04/08	11/27/08 13:05	\$25.00	25%		
Chromium VI - 218.6 CA DV	/ mg/l	12/04/08	11/27/08 13:05	\$150.00	25%		
Iron-Fe +2 (SM3500-Fe D)	%	12/04/08	12/03/08 13:05	\$21.00	25%		
Mercury - 200.8 CA DW	ug/l	12/04/08	05/25/09 13:05	\$40.00	25%	-	
Phosphate-365.3	mg/l	12/04/08	12/24/08 13:05	\$21.00	25%		
Silica - 200.7 CA DW	mg/l as Silica	12/04/08	05/25/09 13:05	\$18.00	25%		
Silicon-6010B	mg/l	12/04/08	05/25/09 13:05	\$18.00	25%	Dissolved	
Strontium-200.7	mg/l	12/04/08	05/25/09 13:05	\$18.00	25%		
Sulfate - 300.0 CA DW	mg/l	12/04/08	12/24/08 13:05	\$21.00	25%		
TOC - SM5310C CA DW	mg/l	12/04/08	12/24/08 13:05	\$40.00	25%		
TSS - SM 2540 D	mg/l	12/04/08	12/03/08 13:05	\$20.00	25%		
Containers Supplied:							
	600 mL poly w/ Acid (C)	Nitric 1	Liter Poly (D)	500 m	L Poly	(E)	250 mL Amber w/ Phosphoric Acid (F)
250 mL Amber (G)							

Released By

Date/Time

Received By

Date/Time

Received By

Date/Time

Page 1 of 1

Released By

Date/Time

24.90 FAX (909) 370-1046 48 hours 7 day Magnesium
 Manganese
 Mercury
 Mercury
 Nickel
 Selenium
 Selenium
 Sodium
 Thallium
 Vanadium
 Zinc immediate Surcharges may be applied for of Tumaround Time* (check one) remaining hold time <48 hours. Sample Integrity: Temp: X Intact: X On Ice: of ちょう Normal 72 Hours 24 Hours □ Aluminum
□ Antimony
□ Arsenic
□ Barium
□ Bervillum
□ Boron
□ Cadmium
□ Calcum
□ Chromium
□ Chromium (909) 370-4667 F. 6/9 1.00 2 CL/CS Date/Time PWS ID# CAKEL POE #: + Chronds 1014 East Cooley Drive, Suite A, Colton, CA 92324 Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. MORGAN X Bonack Samples acidified after dechlorination? P.O./Project Name: HARDER 2 X on N Project Manager: TONY Compliance Sample: Yes 211:5 MAHMEN Data to state's database? Yes (PWS ID required) Received in Lab by CHAIN OF CUSTODY FORM Received by 4) 2+31 03prod 3h3 1870 Aroun 11/24/08 Daty 1/13 Date/Time: 92337 B0608/80908 Dorner 5- dAY CV3CZSICZSC3Z 8015 DRO/ORO (Diesel range 8012 CRO (Gas range C4-C12) Zip Relinquished by. E. Bahar CAM Metals-60108 (mercury Included) Layne Christensen Company Number of Containers State: CA 7609-068 (606) Sampler(s) Name & Signature: DARREN & Donnary Remarks: N2 P 8060 Relinquished by 8000 Date Sampled 30 Fax (sldsT xintsM see) xintsM **TestAmerica** Address: 11001 Eilwanda Ave TW - Treated Water (Point of Entry) (909)390-2833 1001 SW - Surface Water RW - Raw Water (Source) Sample I.D. RW - Recreational Water DW - Drinking Water Fontana RVKen GW - Groundwater Client Name Tel

Form Rev 7-10-06

Ontario Laboratory Work Order CRK1051

Riverside Well

Riverside Well Project: Project Number: Harper Lake Report To: Invoice To: Tony Morgan Steve Costello Layne Christensen Layne Christensen 11001 Etiwanda Avenue 11001 Etiwanda Avenue Fontana, CA 92337 Fontana, CA 92337 Phone: (909) 390-2833 Phone: (909) 390-2833 Fax: (909) 390-6097 Fax: (909) 390-6097 Date Due: 12/4/2008 5:00:00 PM Pacific Laboratory Project Manager: Melissa Cunningham Status: Received Date Received: 11/26/2008 2:03:00 PM Pacific Status Date: 11/26/2008 4:39:31 PM Pacific Date Logged: 11/26/2008 2:26:00 PM Pacific Temp. Received (Deg. C) Cooler Downloads & Deliverables

COC crk1051.pdf 12/1/2008 11:15:08 AM

Sample Table Sample Grid Sample Results

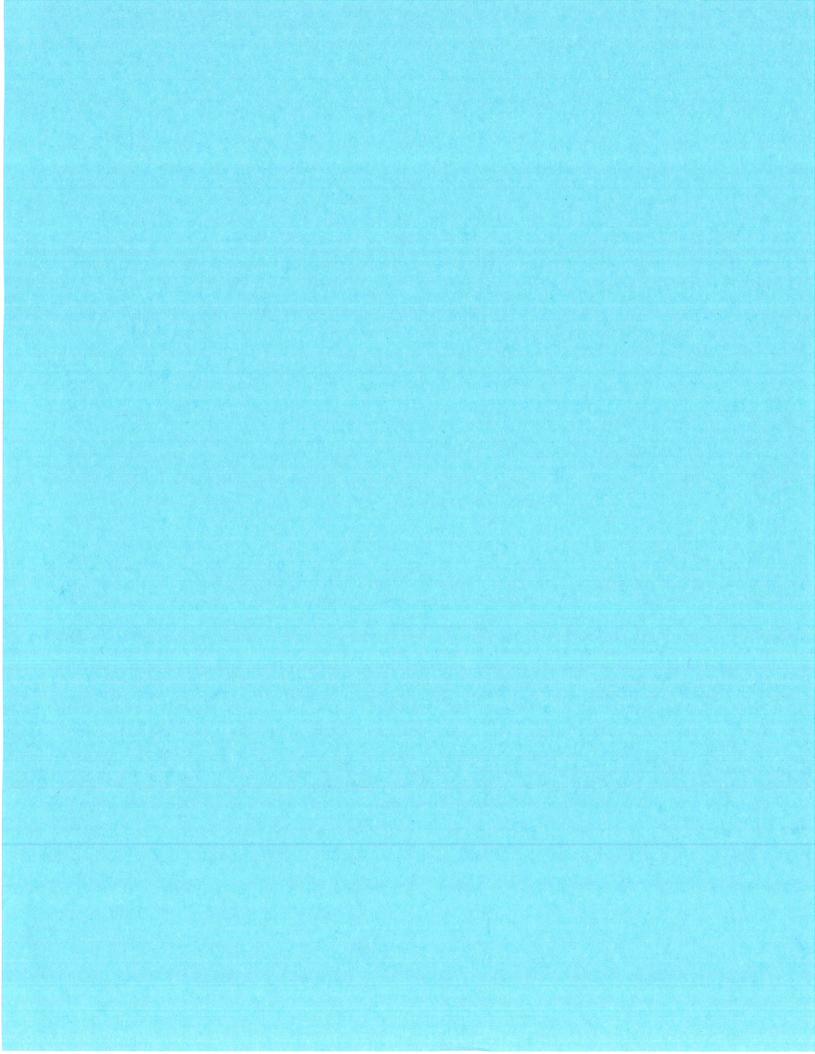
2.3

Default Cooler

Analysis (click sample to view results)	Expires	Status	Status Date
Ryken Well S3 (Water) 01	Sampled: 11/26/2008 9:08:00 AM Pacific		
Ammonia-N, ISE 350.3 - Out	12/24/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
BOD - Out	11/28/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Carbon Dioxide	11/27/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Chromium VI - 218.6 CA DW	11/27/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Color - SM2120B CA DW	11/28/2008 9:08:00 AM Pacific	Reviewed	12/1/2008 10:18:14 AM Pacific
Iron-Fe +2 (SM3500-Fe D)	12/3/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Mercury - 200.8 CA DW	5/25/2009 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Phosphate-365.3	12/24/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Silica - 200.7 CA DW	5/25/2009 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Silicon-6010B	5/25/2009 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Strontium-200.7	5/25/2009 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
Sulfate - 300.0 CA DW	12/24/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
TOC - SM5310C CA DW	12/24/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific
TSS - SM 2540 D	12/3/2008 9:08:00 AM Pacific	Subbed to: TestAmerica Irvine	11/26/2008 2:56:07 PM Pacific

Analytical results on this site have been verified for accuracy against our Reports, but they are not intended as a substitute. Review the Terms and Conditions

© 2008 TestAmerica Laboratories, Inc. All rights reserved.







LABORATORY REPORT

Prepared For: Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project: _Standard Pricing

Standard Pricing

Sampled: 11/05/08 Received: 11/05/08

Issued: 11/29/08 21:02

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, I page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 8°C, on ice and with chain of custody documentation.

HOLDING TIMES: Not all holding times were met. Results were qualified where the sample analysis did not occur within

method specified holding time requirements.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID CLIENT ID MATRIX

CRK0176-01 Wet Lands Supply Well Water

Reviewed By:

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

Standard Pricing

Sampled: 11/05/08 Report Number: CRK0176 Received: 11/05/08

Fontana, CA 92337 Attention: Tony Morgan

Layne Christensen 11001 Etiwanda Avenue

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK0176-01 (Wet Lands Supply	Well - Water)						0.00	
Reporting Units: ug/l	ti ch = (i atci)							
Benzene	EPA 524.2	C8K1402	0.50	ND	ī	11/14/2008	11/14/2008	
Bromodichloromethane	EPA 524.2	C8K1402	1.0	ND	1		11/14/2008	
Bromoform	EPA 524.2	C8K1402	1.0	ND	1		11/14/2008	
Carbon tetrachloride	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Chlorobenzene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Chloroform	EPA 524.2	C8K1402	1.0	ND	1		11/14/2008	
Dibromochloromethane	EPA 524.2	C8K1402	1.0	ND	1		11/14/2008	
1,2-Dichlorobenzene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1,4-Dichlorobenzene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1,1-Dichloroethane	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1,2-Dichloroethane	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1,1-Dichloroethene	EPA 524.2	C8K1402	0.50	ND	I		11/14/2008	
cis-1,2-Dichloroethene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
trans-1,2-Dichloroethene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1,2-Dichloropropane	EPA 524.2	C8K1402	0.50	ND	i		11/14/2008	
cis-1,3-Dichloropropene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
trans-1,3-Dichloropropene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1,3-Dichloropropene, Total	EPA 524.2	C8K1402	0.50	ND	I		11/14/2008	
Ethylbenzene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Methylene chloride	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Styrene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1,1,2,2-Tetrachloroethane	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Tetrachloroethene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Toluene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1,2,4-Trichlorobenzene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1.1.1-Trichloroethane	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
1.1.2-Trichloroethane	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Trichloroethene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Trichlorofluoromethane (Freon 11)	EPA 524.2	C8K1402	5.0	ND	1		11/14/2008	
Trichlorotrifluoroethane (Freon 113)	EPA 524.2	C8K1402	10	ND	1		11/14/2008	
Vinyl chloride	EPA 524.2	C8K1402	0.50	ND	I		11/14/2008	
m,p-Xylenes	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
o-Xylene	EPA 524.2	C8K1402	0.50	ND	1		11/14/2008	
Xylenes, Total	EPA 524.2	C8K1402	1.0	ND	1		11/14/2008	
Methyl-tert-butyl Ether (MTBE)	EPA 524.2	C8K1402	3.0	ND	1		11/14/2008	
Trihalomethanes, Total	EPA 524.2	C8K1402		<4.0	1		11/14/2008	
Surrogate: 4-Bromofluorobenzene (70-130%)				73 %				
Surrogate: 1,2-Dichlorobenzene-d4 (70-130%)				93 %				

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen

Pr

Project ID: _Standard Pricing

11001 Etiwanda Avenue Fontana, CA 92337 _Standard Pricing Report Number: CRK0176 Sampled: 11/05/08

Attention: Tony Morgan

Received: 11/05/08

EDB AND DBCP IN WATER BY GC/ECD (EPA 504.1)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK0176-01 (Wet Lands Supply	Well - Water)							
Reporting Units: ug/l								
1,2-Dibromoethane (EDB)	EPA 504.1	C8K1128	0.020	ND	0.99	11/11/2008	11/11/2008	
1,2-Dibromo-3-chloropropane	EPA 504.1	C8K1128	0.010	ND	0.99	11/11/2008	11/11/2008	
Surrogate: 4-Bromofluorobenzene (65-154%)				118%				



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337

Attention: Tony Morgan

Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK0176-01 (Wet Lands S	upply Well - Water)							
Reporting Units: ug/l								
Atrazine	EPA 525.2	C8K1105	0.50	ND	0.99	11/11/2008	11/11/2008	
Simazine	EPA 525.2	C8K1105	1.0	ND	0.99	11/11/2008	11/11/2008	L.
Surrogate: 1,3-Dimethyl-2-nitrobenzene	(70-130%)			110%				
Surrogate: Triphenylphosphate (70-130%	5)			90 %				
Surrogate: Perylene-d12 (70-130%)				73 %				



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

Standard Pricing

Sampled: 11/05/08 Report Number: CRK0176 Received: 11/05/08

Attention: Tony Morgan

Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRK0176-01RE1 (Wet Lands S	upply Well - Wa	ter) - cont.						
Reporting Units: ug/l								
Di(2-ethylhexyl)adipate	EPA 525.2	C8K1105	5.0	ND	0.99	11/11/2008	11/14/2008	
Di(2-ethylhexyl)phthalate	EPA 525.2	C8K1105	3.0	ND	0.99	11/11/2008	11/14/2008	
Hexachlorobenzene	EPA 525.2	C8K1105	0.50	ND	0.99	11/11/2008	11/14/2008	
Hexachlorocyclopentadiene	EPA 525.2	C8K1105	1.0	ND	0.99	11/11/2008	11/14/2008	
Molinate	EPA 525.2	C8K1105	2.0	ND	0.99	11/11/2008	11/14/2008	
Thiobencarb	EPA 525.2	C8K1105	1.0	ND	0.99	11/11/2008	11/14/2008	
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-1	30%)			91%				
Surrogate: Triphenylphosphate (70-130%)				92 %				
Surrogate: Perylene-d12 (70-130%)				80 %				



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

Standard Pricing

Sampled: 11/05/08 Report Number: CRK0176 Received: 11/05/08

Attention: Tony Morgan

11001 Etiwanda Avenue

Layne Christensen

Fontana, CA 92337

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRK0176-01RE2 (Wet Lands S	upply Well - Wa	ter) - cont.						
Reporting Units: ug/l								
Benzo(a)pyrene	EPA 525.2	C8K1105	0.10	ND	0.99	11/11/2008	11/17/2008	
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-1	30%)			100 %				
Surrogate: Triphenylphosphate (70-130%)				100 %				
Surrogate: Perylene-d12 (70-130%)				86 %				



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

_Standard Pricing Sampled: 11/05/08

Report Number: CRK0176 Received: 11/05/08

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan

Layne Christensen

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRK0176-01 (Wet Lands Sup	pply Well - Water)							
Reporting Units: ug/l								
Alachlor	EPA 505	C8K0618	1.0	ND	0.985	11/6/2008	11/6/2008	C, L, M1
Endrin	EPA 505	C8K0618	0.10	ND	0.985	11/6/2008	11/6/2008	
Heptachlor	EPA 505	C8K0618	0.010	ND	0.985	11/6/2008	11/6/2008	C, L
Heptachlor epoxide	EPA 505	C8K0618	0.010	ND	0.985	11/6/2008	11/6/2008	
Lindane (gamma-BHC)	EPA 505	C8K0618	0.20	ND	0.985	11/6/2008	11/6/2008	
Methoxychlor	EPA 505	C8K0618	10	ND	0.985	11/6/2008	11/6/2008	
Chlordane	EPA 505	C8K0618	0.10	ND	0.985	11/6/2008	11/6/2008	
Toxaphene	EPA 505	C8K0618	1.0	ND	0.985	11/6/2008	11/6/2008	
Aroclor 1016	EPA 505	C8K0618	0.26	ND	0.985	11/6/2008	11/6/2008	
Aroclor 1221	EPA 505	C8K0618	0.19	ND	0.985	11/6/2008	11/6/2008	
Aroclor 1232	EPA 505	C8K0618	0.23	ND	0.985	11/6/2008	11/6/2008	
Aroclor 1242	EPA 505	C8K0618	0.26	ND	0.985	11/6/2008	11/6/2008	
Aroclor 1248	EPA 505	C8K0618	0.30	ND	0.985	11/6/2008	11/6/2008	
Aroclor 1254	EPA 505	C8K0618	0.33	ND	0.985	11/6/2008	11/6/2008	
Aroclor 1260	EPA 505	C8K0618	0.36	ND	0.985	11/6/2008	11/6/2008	
PCBs as Decachlorobiphenyl (DCB)	EPA 505	C8K0618	0.50	ND	0.985	11/6/2008	11/6/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

Standard Pricing

Sampled: 11/05/08 Report Number: CRK0176 Received: 11/05/08

Attention: Tony Morgan

11001 Etiwanda Avenue

Layne Christensen

Fontana, CA 92337

CHLORINATED ACIDS (EPA 515.4)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK0176-01RE1 (Wet			2	resure	racioi	Estracteu	Analyzed	Quantiters
Reporting Units: ug/l	Lands Supply Well - Wa	terj						
Bentazon	EPA 515.4	C8K1104	2.0	ND	1.01	11/7/2008	11/12/2008	
2,4-D	EPA 515.4	C8K1104	10	ND	1.01	11/7/2008	11/12/2008	C, L
Dalapon	EPA 515.4	C8K1104	10	ND	1.01	11/7/2008	11/12/2008	
Dacthal acid metabolites	EPA 515.4	C8K1104	1.0	ND	1.01	11/7/2008	11/13/2008	
Dicamba	EPA 515.4	C8K1104	1.5	ND	1.01	11/7/2008	11/12/2008	
Dinoseb	EPA 515.4	C8K1104	2.0	ND	1.01	11/7/2008	11/12/2008	
Pentachlorophenol	EPA 515.4	C8K1104	0.20	ND	1.01	11/7/2008	11/12/2008	
Picloram	EPA 515.4	C8K1104	1.0	ND	1.01	11/7/2008	11/12/2008	
2,4,5-TP (Silvex)	EPA 515.4	C8K1104	1.0	ND	1.01	11/7/2008	11/12/2008	
Surrogate: 2,4-Dichlorophenylacetic	acid (70-130%)			94 %				



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

Standard Pricing

Sampled: 11/05/08 Report Number: CRK0176 Received: 11/05/08

Fontana, CA 92337 Attention: Tony Morgan

Layne Christensen 11001 Etiwanda Avenue

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRK0176-01 (Wet Lan	ds Supply Well - Water)							
Reporting Units: ug/l								
Aldicarb Sulfoxide	EPA 531,1	C8K0724	3.0	ND	1	11/7/2008	11/8/2008	
Aldicarb Sulfone	EPA 531.1	C8K0724	2.0	ND	1	11/7/2008	11/8/2008	
Oxamyl	EPA 531.1	C8K0724	20	ND	1	11/7/2008	11/8/2008	
Methomyl	EPA 531.1	C8K0724	2.0	ND	1	11/7/2008	11/8/2008	
3-Hydroxycarbofuran	EPA 531.1	C8K0724	3.0	ND	1	11/7/2008	11/8/2008	
Aldicarb	EPA 531.1	C8K0724	3.0	ND	1	11/7/2008	11/8/2008	
Carbofuran	EPA 531.1	C8K0724	5.0	ND	1	11/7/2008	11/8/2008	C, L
Carbaryl	EPA 531.1	C8K0724	5.0	ND	1	11/7/2008	11/8/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

ENDOTHALL (EPA 548.1)

Method	Batch	Reporting Limit	Sample Result			Date Analyzed	Data Qualifiers
pply Well - Water)							
EPA 548.1	C8K0704	45	ND	1	11/7/2008	11/10/2008	
	pply Well - Water)	pply Well - Water)	Method Batch Limit pply Well - Water)	pply Well - Water)	Method Batch Limit Result Factor pply Well - Water)	Method Batch Limit Result Factor Extracted pply Well - Water)	Method Batch Limit Result Factor Extracted Analyzed pply Well - Water)



Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337

Attention: Tony Morgan

1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

GLYPHOSATE (EPA 547)

			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRK0176-01 (Wet Lands	Supply Well - Water)							
Reporting Units: ug/l								
Glyphosate	EPA 547	C8K0728	25	ND	1	11/9/2008	11/9/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: _Standard Pricing 11001 Etiwanda Avenue __Standard Pricing

_Standard Pricing Sampled: 11/05/08 Report Number: CRK0176 Received: 11/05/08

Fontana, CA 92337 Report Number: CRK0 Attention: Tony Morgan

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK0176-01 (Wet Lands S	Supply Well - Water)							ρН
Reporting Units: Color Units Color	SM2120B	C8K0631	1	ND	1	11/6/2008	11/6/2008	
Sample ID: CRK0176-01 (Wet Lands S Reporting Units: NTU	Supply Well - Water)							
Turbidity	EPA 180.1	C8K0634	0.10	ND	1	11/6/2008	11/6/2008	
Sample ID: CRK0176-01 (Wet Lands S	Supply Well - Water)							HFT
Reporting Units: pH Units pH	EPA 150.1	C8K0627	NA	7.4	1	11/6/2008	11/6/2008	
Sample ID: CRK0176-01 (Wet Lands S	Supply Well - Water)							
Reporting Units: T.O.N. Odor	SM2150B	C8K0628	1.0	ND	1	11/6/2008	11/6/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

Attention: Tony Morgan

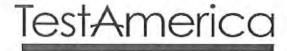
11001 Etiwanda Avenue

Layne Christensen

Fontana, CA 92337

FIELD TESTS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK0176-01 (Wet Lands Reporting Units: °C	s Supply Well - Water)							
Temperature	Field Test	C8K1006	1.0	25	1	11/5/2008	11/10/2008	FT
Sample ID: CRK0176-01 (Wet Lands Reporting Units: pH Units	Supply Well - Water)							
pH	Field Test	C8K1006	NA	7.3	1	11/5/2008	11/10/2008	FT



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen Project ID: Standard Pricing
11001 Etiwanda Avenue Standard Pricing

_Standard Pricing Sampled: 11/05/08

Report Number: CRK0176 Received: 11/05/08

Fontana, CA 92337 Attention: Tony Morgan

		MI	ETALS					
			Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRK0176-01 (Wet Land	ls Supply Well - Water)							
Reporting Units: mg/l								
Hardness (as CaCO3)	SM2340B	[CALC]	0.33	920	1	11/10/2008	11/11/2008	
Calcium	EPA 200.7	8K10116	0.10	270	1	11/10/2008	11/11/2008	MHA
Iron	EPA 200.7	8K10116	0.040	0.25	1	11/10/2008	11/11/2008	
Magnesium	EPA 200.7	8K10116	0.020	59	1	11/10/2008	11/11/2008	MHA
Potassium	EPA 200.7	8K10116	0.50	7.9	1	11/10/2008	11/11/2008	
Sodium	EPA 200.7	8K10116	1.0	1400	2	11/10/2008	11/12/2008	
Strontium	EPA 200.7	8K10116	0.020	8.3	1	11/10/2008	11/11/2008	MHA
Mercury	EPA 245.1	8K10129	0.00020	ND	1	11/10/2008	11/10/2008	
Sample ID: CRK0176-01 (Wet Land	ls Supply Well - Water)							
Reporting Units: mg/l as Silica Silicon	EPA 200.7	8K10116	0.11	35	i	11/10/2008	11/11/2008	
		OKTOTIO	0.11	33		11/10/2008	11/11/2006	
Sample ID: CRK0176-01 (Wet Land Reporting Units: pCi/L	ls Supply Well - Water)							
Uranium pCi/L (CA)	EPA 200.8	8K10149	2.0	15	2	11/10/2008	11/12/2008	
Sample ID: CRK0176-01 (Wet Land	ls Supply Well - Water)							
Reporting Units: ug/l								
Aluminum	EPA 200.8	8K10149	20	ND	2	11/10/2008	11/13/2008	
Antimony	EPA 200.8	8K10149	4.0	ND	2	11/10/2008	11/12/2008	RL1
Arsenic	EPA 200.8	8K10149	2.0	5.5	2	11/10/2008	11/12/2008	
Barium	EPA 200.8	8K10149	2.0	37	2	11/10/2008	11/13/2008	
Beryllium	EPA 200.8	8K10149	1.0	ND	2	11/10/2008	11/13/2008	RL1
Cadmium	EPA 200.8	8K10149	2.0	ND	2	11/10/2008	11/12/2008	RL1
Chromium	EPA 200.8	8K10149	4.0	ND	2	11/10/2008	11/12/2008	RLI
Copper	EPA 200.8	8K10149	4.0	7.1	2	11/10/2008	11/12/2008	
Lead	EPA 200.8	8K10149	2.0	3.4	2	11/10/2008	11/12/2008	
Manganese	EPA 200.8	8K10149	2.0	2.5	2		11/12/2008	
Nickel	EPA 200.8	8K10149	4.0	ND	2	11/10/2008	11/12/2008	RL1
Selenium	EPA 200.8	8K10149	4.0	13	2		11/12/2008	
Silver	EPA 200.8	8K10149	2.0	ND	2		11/12/2008	C, RL1
Thallium	EPA 200.8	8K10149	2.0	ND	2		11/12/2008	RL1
Zinc	EPA 200.8	8K10149	40	ND	2		11/12/2008	RL1

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

Fontana, CA 92337

11001 Etiwanda Avenue

Attention: Tony Morgan

Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

INORGANICS

		INOR	GANICS					
1 = 1.4	44.00.0	D I	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: CRK0176-01 (Wet Lands 5 Reporting Units; mg/l	Supply Well - Water)							
Carbon Dioxide	SM4500-CO2 C	8K06109	2.0	18	1	11/6/2008	11/6/2008	HFTa
Chromium VI	EPA 218.6	8K06100	0.0010	ND	1	11/6/2008	11/6/2008	H
Alkalinity as CaCO3	SM2320B	8K10074	2.0	130	1	11/10/2008	11/10/2008	
Bicarbonate Alkalinity as CaCO3	SM2320B	8K10074	2.0	130	1	11/10/2008	11/10/2008	
Carbonate Alkalinity as CaCO3	SM2320B	8K10074	2.0	ND	1	11/10/2008	11/10/2008	
Hydroxide Alkalinity as CaCO3	SM2320B	8K10074	2.0	ND	1	11/10/2008	11/10/2008	
Ammonia as Ammonium	EPA 350.3	8K11123	0.60	ND	1	11/11/2008	11/11/2008	
Biochemical Oxygen Demand	SM5210B	8K07085	2.0	ND	1	11/7/2008	11/12/2008	
Ferrous Iron	SM 3500-Fe D	8K07068	0.10	ND	1	11/7/2008	11/7/2008	HFTa
Chloride	EPA 300.0	8K06062	50	2400	100	11/6/2008	11/6/2008	
Total Cyanide	SM4500-CN-C,E	8K11096	0.025	ND	1	11/11/2008	11/11/2008	
Fluoride	SM 4500-F-C	8K07005	0.10	0.98	1	11/7/2008	11/7/2008	
Nitrate-N	EPA 300.0	8K06062	3.0	11	20	11/6/2008	11/6/2008	
Nitrate-NO3	EPA 300.0	8K06062	10	48	20	11/6/2008	11/6/2008	
Nitrite-N	EPA 300.0	8K06062	0.15	ND	1	11/6/2008	11/6/2008	
Nitrate/Nitrite-N	EPA 300.0	8K06062	5.2	11	20	11/6/2008	11/6/2008	
Phosphate (PO4)	EPA 365.3	8K13117	0.15	ND	1	11/13/2008	11/13/2008	
Sulfate	EPA 300.0	8K06062	10	930	20	11/6/2008	11/6/2008	
Surfactants (MBAS)	SM5540-C	8K06107	0.10	ND	1	11/6/2008	11/6/2008	
Total Dissolved Solids	SM2540C	8K10049	10	5500	1	11/10/2008	11/10/2008	
Total Organic Carbon	SM5310C	8K07008	0.10	0.47	1	11/7/2008	11/7/2008	
Total Suspended Solids	EPA 160.2	8K12108	10	10	1	11/12/2008	11/12/2008	
Sample ID: CRK0176-01 (Wet Lands S Reporting Units: pH Units	Supply Well - Water)							
рН	EPA 150.1	8K07071	0.100	7.63	1	11/7/2008	11/7/2008	HFTa
Sample ID: CRK0176-01 (Wet Lands S Reporting Units: ug/l	Supply Well - Water)							
Perchlorate	EPA 314.0	8K14067	2.0	ND	1	11/14/2008	11/14/2008	
Sample ID: CRK0176-01 (Wet Lands S Reporting Units: umhos/cm @ 25C	Supply Well - Water)							
Specific Conductance	SM2510B	8K10052	1.0	8200	1	11/10/2008	11/10/2008	

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Attention: Tony Morgan

11001 Etiwanda Avenue

Layne Christensen

Fontana, CA 92337

Sampled: 11/05/08 Received: 11/05/08

AGGRESSIVE INDEX

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: CRK0176-01 (Wet Lands S	Supply Well - Water)							
Reporting Units: SI Units								
Aggressive Index	Calc	8K14109	0.010	13	1	11/14/2008	11/14/2008	



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

Standard Pricing

Sampled: 11/05/08 Report Number: CRK0176 Received: 11/05/08

Attention: Tony Morgan

Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Cample ID: Wet Lands Cumb			Received	Extracted	Analyzeu
Sample ID: Wet Lands Supply	Well (CRK01/6-01) - Water				
EPA 150.1	0	11/05/2008 12:45	11/05/2008 16:09	11/07/2008 08:20	11/07/2008 08:20
pН				11/06/2008 10:35	11/06/2008 10:35
EPA 180.1	2	11/05/2008 12:45	11/05/2008 16:09	11/06/2008 14:10	11/06/2008 14:10
EPA 218.6	1	11/05/2008 12:45	11/05/2008 16:09	11/06/2008 12:55	11/06/2008 13:15
EPA 300.0	2	11/05/2008 12:45	11/05/2008 16:09	11/06/2008 16:00	11/06/2008 17:29
Nitrite-N				11/06/2008 16:00	11/06/2008 17:16
SM 3500-Fe D	1	11/05/2008 12:45	11/05/2008 16:09	11/07/2008 08:37	11/07/2008 12:35
SM2120B	2	11/05/2008 12:45	11/05/2008 16:09	11/06/2008 11:45	11/06/2008 11:45
SM2150B	1	11/05/2008 12:45	11/05/2008 16:09	11/06/2008 09:35	11/06/2008 09:35
SM4500-CO2 C	1	11/05/2008 12:45	11/05/2008 16:09	11/06/2008 13:48	11/06/2008 14:00
SM5210B	2	11/05/2008 12:45	11/05/2008 16:09	11/07/2008 10:57	11/12/2008 09:30
SM5540-C	2	11/05/2008 12:45	11/05/2008 16:09	11/06/2008 13:24	11/06/2008 22:08



Fontana, CA 92337

Attention: Tony Morgan

1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen Project ID: _Standard Pricing 11001 Etiwanda Avenue

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C8K1402 Extracted: 11/14/08	T Count	Z.i.i.i.	Cons	Devel	reguit	TOTALLO	Zimita	KI D	Ammit	Quanners
Blank Analyzed: 11/14/2008 (C8K1402	-RI K1)									
Benzene	ND	0.50	ug/l							
Bromodichloromethane	ND	1.0	ug/l							
Bromoform	ND	1.0	ug/l							
Carbon tetrachloride	ND	0.50	ug/I							
Chlorobenzene	ND	0.50	ug/l							
Chloroform	ND	1.0	ug/l							
Dibromochloromethane	ND	1.0	ug/l							
1,2-Dichlorobenzene	ND	0.50	ug/I							
1,4-Dichlorobenzene	ND	0.50	ug/I							
1,1-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
cis-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/I							
1,2-Dichloropropane	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/I							
1,3-Dichloropropene, Total	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Methylene chloride	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/I							
Toluene	ND	0.50	ug/l							
1,2,4-Trichlorobenzene	ND	0.50	ug/l							
1,1,1-Trichloroethane	ND	0.50	ug/l							
1,1,2-Trichloroethane	ND	0.50	ug/l							
Trichloroethene	ND	0.50								
Trichlorofluoromethane (Freon 11)	ND	5.0	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	10	ug/l							
Vinyl chloride	ND	0.50	ug/I							
m,p-Xylenes	ND	0.50	ug/l ug/l							
o-Xylene	ND	0.50								
Xylenes, Total	ND	1.0	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	3.0	ug/l ug/l							
Trihalomethanes, Total	<4.0	1.0	ug/l							
TestAmerica Ontario	>4.0	1,0	ug/I							

Charles R. Morrow For Melissa Cunningham

Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: C8K1402 Extracted: 11/14/0		Dimit.	Cims	Devel	resun	701CLC	1.1111113	KI D	Limit	Quantita
Blank Analyzed: 11/14/2008 (C8K14	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			5.00		70	70 120			
Surrogate: 4-Bromofluorobenzene Surrogate: 1,2-Dichlorobenzene-d4	3.48 3.92		ug/l ug/l	5.00		70 78	70-130 70-130			
LCS Analyzed: 11/14/2008 (C8K140	2-BS1)									
Benzene	9.30	0.50	ug/l	10.0		93	70-130			
Bromodichloromethane	9.46	1.0	ug/l	10.0		95	70-130			
Bromoform	8.37	1.0	ug/l	10.0		84	70-130			
Carbon tetrachloride	9.47	0.50	ug/l	10.0		95	70-130			
Chlorobenzene	9.84	0.50	ug/l	10.0		98	70-130			
Chloroform	8.92	1.0	ug/l	10.0		89	70-130			
Dibromochloromethane	9.70	1.0	ug/l	10.0		97	70-130			
1,2-Dichlorobenzene	9.88	0.50	ug/l	10.0		99	70-130			
1,4-Dichlorobenzene	10.4	0.50	ug/l	10.0		104	70-130			
1.1-Dichloroethane	9.29	0.50	ug/l	10.0		93	70-130			
1,2-Dichloroethane	9.10	0.50	ug/l	10.0		91	70-130			
1,1-Dichloroethene	9.37	0.50	ug/l	10.0		94	70-130			
cis-1,2-Dichloroethene	9.27	0.50	ug/l	10.0		93	70-130			
trans-1,2-Dichloroethene	9.29	0.50	ug/l	10.0		93	70-130			
1,2-Dichloropropane	9.01	0.50	ug/l	10.0		90	70-130			
cis-1,3-Dichloropropene	9.36	0.50	ug/l	10.0		94	70-130			
trans-1,3-Dichloropropene	8.12	0.50	ug/l	10.0		81	70-130			
1,3-Dichloropropene, Total	17.5	0.50	ug/l	20.0		87	70-130			
Ethylbenzene	8.76	0.50	ug/l	10.0		88	70-130			
Methylene chloride	9.10	0.50	ug/l	10.0		91	70-130			
Styrene	8.69	0.50	ug/l	10.0		87	70-130			
1,1,2,2-Tetrachloroethane	9.63	0.50	ug/L	10.0		96	70-130			
Tetrachloroethene	9.25	0.50	ug/l	10.0		92	70-130			
Toluene	9.71	0.50	ug/l	10.0		97	70-130			
1,2,4-Trichlorobenzene	10.2	0.50	ug/l	10.0		102	70-130			
1,1,1-Trichloroethane	9.29	0.50	ug/l	10.0		93	70-130			
1.1.2-Trichloroethane	9.08	0.50	ug/l	10.0		91	70-130			
Trichloroethene	9.32	0.50	ug/I	10.0		93	70-130			
Trichlorofluoromethane (Freon 11)	9.14	5.0	ug/l	10.0		91	70-130			
Trichlorotrifluoroethane (Freon 113)	9.56	10	ug/l	10.0		96	70-130			
Vinyl chloride	9.63	0.50	ug/l	10.0		96	70-130			
m,p-Xylenes	17.6	0.50	ug/l	20.0		88	70-130			
tosk askatata	17.0	N.M.M.	MP. I	20.0		00	70-130			

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax:(909) 370-1046

Layne Christensen Project ID: _Standard Pricing 11001 Etiwanda Avenue __Standard Pricing

_Standard Pricing Sampled: 11/05/08

Fontana, CA 92337 Report Number: CRK0176 Received: 11/05/08 Attention: Tony Morgan

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

La Lac		Reporting		Spike	Source	al ppo	%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K1402 Extracted: 11/14/08	8									
LCS Analyzed: 11/14/2008 (C8K1402	2-BS1)									
o-Xylene	9.93	0.50	ug/l	10.0		99	70-130			
Xylenes, Total	27.5	1.0	ug/l	30.0		92	70-130			
Methyl-tert-butyl Ether (MTBE)	18.1	3.0	ug/l	20.0		91	70-130			
Trihalomethanes, Total	36.4	1.0	ug/l	40.0		91	70-130			
Surrogate: 4-Bromofluorobenzene	5.27		ug/l	5.00		105	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	5.40		ug/l	5.00		108	70-130			
Matrix Spike Analyzed: 11/14/2008 (C8K1402-MS1)				Source: C	RK0201-	01			
Benzene	4.70	0.50	ug/l	5.00	ND	94	70-125			
Bromodichloromethane	22.1	1.0	ug/l	5.00	18.4	73	40-150			
Bromoform	10.9	1.0	ug/l	5.00	6.63	85	45-120			
Carbon tetrachloride	4.71	0.50	ug/l	5.00	ND	94	60-140			
Chlorobenzene	4.74	0.50	ug/l	5.00	ND	95	60-125			
Chloroform	13.7	1.0	ug/l	5.00	10.1	73	55-130			
Dibromochloromethane	26.8	1.0	ug/l	5.00	21,7	103	50-130			
1,2-Dichlorobenzene	5.04	0.50	ug/l	5.00	ND	101	60-130			
1,4-Dichlorobenzene	5.24	0.50	ug/I	5.00	ND	105	60-135			
1,1-Dichloroethane	4.91	0.50	ug/l	5.00	ND	98	67-124			
1,2-Dichloroethane	4.79	0.50	ug/l	5.00	ND	96	50-140			
1,1-Dichloroethene	4.83	0.50	ug/l	5.00	ND	97	42-139			
cis-1,2-Dichloroethene	4.68	0.50	ug/l	5.00	ND	94	70-115			
trans-1,2-Dichloroethene	4.82	0.50	ug/l	5.00	ND	96	70-115			
1,2-Dichloropropane	4.64	0.50	ug/I	5.00	ND	93	65-125			
cis-1,3-Dichloropropene	4.53	0.50	ug/l	5.00	ND	91	45-130			
trans-1,3-Dichloropropene	4.12	0.50	ug/l	5.00	ND	82	55-110			
1,3-Dichloropropene, Total	8.65	0.50	ug/l	10.0	ND	86	30-140			
Ethylbenzene	5.06	0.50	ug/l	5.00	0.600	89	60-120			
Methylene chloride	4.82	0.50	ug/l	5.00	ND	96	60-110			
Styrene	4.36	0.50	ug/l	5.00	ND	87	25-140			
1,1,2,2-Tetrachloroethane	5.17	0.50	ug/l	5.00	ND	103	66-132			
Tetrachloroethene	4.58	0.50	ug/l	5.00	ND	92	55-135			
Toluene	4.76	0.50	ug/l	5.00	ND	95	65-125			
1,2,4-Trichlorobenzene	5.14	0.50	ug/l	5.00	ND	103	55-142			
1,1,1-Trichloroethane	4.64	0.50	ug/l	5.00	ND	93	55-143			
1,1,2-Trichloroethane	4.61	0.50	ug/l	5.00	ND	92	69-123			
Trichloroethene	4.61	0.50	ug/l	5.00	ND	92	75-115			

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Fontana, CA 92337 Attention: Tony Morgan

Layne Christensen 11001 Etiwanda Avenue

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
	Result	Limit	Cints	Level	Result	70 KEC	Limits	Krb	Linit	Quanners
Batch: C8K1402 Extracted: 11/14/08										
Matrix Spike Analyzed: 11/14/2008 (C8	K1402-MS1)			Source: C	RK0201-	01			
Trichlorofluoromethane (Freon 11)	5.48	5.0	ug/l	5.00	0.830	93	65-140			
Trichlorotrifluoroethane (Freon 113)	4.86	10	ug/l	5.00	ND	97	60-135			
Vinyl chloride	4.94	0.50	ug/l	5.00	ND	99	60-130			
m,p-Xylenes	10.7	0.50	ug/l	10.0	1,69	90	60-125			
o-Xylene	5.80	0.50	ug/l	5.00	0.470	107	75-115			
Xylenes, Total	16.5	1.0	ug/l	15.0	2.16	96	60-135			
Methyl-tert-butyl Ether (MTBE)	10.1	3.0	ug/l	10.0	ND	101	50-130			
Trihalomethanes, Total	73.5	1.0	ug/l	20.0	56.8	83	55-125			
Surrogate: 4-Bromofluorobenzene	5.16		ug/l	5.00		103	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	5.40		ug/l	5.00		108	70-130			
Matrix Spike Dup Analyzed: 11/14/2008	8 (C8K1402-	MSD1)			Source: C	RK0201-	01			
Benzene	5.22	0.50	ug/l	5.00	ND	104	70-125	10	25	
Bromodichloromethane	22.4	1.0	ug/l	5.00	18.4	78	40-150	1	20	
Bromoform	11.6	1.0	ug/l	5.00	6.63	100	45-120	7	20	
Carbon tetrachloride	5.24	0.50	ug/l	5.00	ND	105	60-140	11	30	
Chlorobenzene	5.39	0.50	ug/l	5.00	ND	108	60-125	13	20	
Chloroform	14.0	1.0	ug/l	5.00	10.1	79	55-130	2	15	
Dibromochloromethane	27.6	1.0	ug/l	5.00	21.7	119	50-130	3	15	
1,2-Dichlorobenzene	5.52	0.50	ug/l	5.00	ND	110	60-130	9	20	
1,4-Dichlorobenzene	5.75	0.50	ug/l	5.00	ND	115	60-135	9	20	
1,1-Dichloroethane	5,50	0.50	ug/I	5.00	ND	110	67-124	11	19	
1,2-Dichloroethane	5.53	0.50	ug/l	5.00	ND	111	50-140	14	30	
1,1-Dichloroethene	5.47	0.50	ug/l	5.00	ND	109	42-139	12	29	
cis-1,2-Dichloroethene	5.22	0.50	ug/l	5.00	ND	104	70-115	11	15	
trans-1,2-Dichloroethene	5.42	0.50	ug/l	5.00	ND	108	70-115	12	20	
1,2-Dichloropropane	5.35	0.50	ug/l	5.00	ND	107	65-125	14	20	
cis-1,3-Dichloropropene	5.14	0.50	ug/l	5.00	ND	103	45-130	13	15	
trans-1,3-Dichloropropene	4.70	0.50	ug/l	5.00	ND	94	55-110	13	20	
1,3-Dichloropropene, Total	9.84	0.50	ug/l	10.0	ND	98	30-140	13	20	
Ethylbenzene	5.47	0.50	ug/I	5.00	0.600	97	60-120	8	20	
Methylene chloride	5.45	0.50	ug/I	5.00	ND	109	60-110	12	15	
Styrene	4.87	0.50	ug/l	5.00	ND	97	25-140	11	25	
1,1,2,2-Tetrachloroethane	5.78	0.50	ug/l	5.00	ND	116	66-132	11	24	
Tetrachloroethene	5.12	0.50	ug/l	5.00	ND	102	55-135	11	20	
Toluene	5.35	0.50	ug/l	5.00	ND	107	65-125	12	20	

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

PURGEABLE ORGANIC COMPOUNDS BY GC/MS (EPA 524.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K1402 Extracted: 11/14/08	<u>3.</u>									
Matrix Spike Dup Analyzed: 11/14/2	008 (C8K1402-	MSD1)			Source: C	CRK0201-	01			
1,2,4-Trichlorobenzene	5.52	0.50	ug/l	5.00	ND	110	55-142	7	22	
1,1,1-Trichloroethane	5.20	0.50	ug/l	5.00	ND	104	55-143	11	21	
1,1,2-Trichloroethane	5.49	0.50	ug/l	5.00	ND	110	69-123	17	19	
Trichloroethene	5.17	0.50	ug/l	5.00	ND	103	75-115	11	20	
Trichlorofluoromethane (Freon 11)	6.21	5.0	ug/l	5.00	0.830	108	65-140	12	25	
Trichlorotrifluoroethane (Freon 113)	5.55	10	ug/l	5.00	ND	111	60-135	13	25	
Vinyl chloride	5.76	0.50	ug/l	5.00	ND	115	60-130	15	20	
m,p-Xylenes	11.6	0.50	ug/l	10.0	1.69	99	60-125	8	20	
o-Xylene	6.22	0.50	ug/l	5.00	0.470	115	75-115	7	20	
Xylenes, Total	17.8	1.0	ug/l	15.0	2.16	104	60-135	7	20	
Methyl-tert-butyl Ether (MTBE)	12.0	3.0	ug/I	10.0	ND	120	50-130	17	25	
Trihalomethanes, Total	75.7	1.0	ug/l	20.0	56.8	94	55-125	3	15	
Surrogate: 4-Bromofluorobenzene	5.14		ug/l	5.00		103	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	5.43		ug/l	5.00		109	70-130			



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

EDB AND DBCP IN WATER BY GC/ECD (EPA 504.1)

	Reporting		Spike	Source		%REC		RPD	Data
Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
-BLK1)									
ND	0.020	ug/I							
ND	0.010	ug/l							
5.89		ug/l	5.07		116	65-154			
BS1)									
0.216	0.020	ug/l	0.252		86	70-130			
0.225	0.010	ug/l	0.252		89	70-130			
5.90		ug/l	5,04		117	65-154			
128-BSD1)									
0.0874	0.020	ug/I	0.100		87	70-130	2	30	
0.102	0.010	ug/I	0.100		101	70-130	13	21	
5.75		ug/l	5.02		114	65-154			
8K1128-MS1)	1			Source: C	CRK0176-	01			
0.198	0.020	ug/I	0.252	ND	79	65-135			
0.216	0.010	ug/l	0.252	0.00318	84	65-135			
5.39		ug/l	5.04		107	65-154			
	-BLK1) ND ND 5.89 3S1) 0.216 0.225 5.90 128-BSD1) 0.0874 0.102 5.75 BK1128-MS1) 0.198 0.216	Result Limit -BLK1) ND 0.020 ND 0.010 5.89 3S1) 0.216 0.020 0.225 0.010 5.90 128-BSD1) 0.0874 0.020 0.102 0.010 5.75 3K1128-MS1) 0.198 0.020 0.216 0.010	Result Limit Units -BLK1) ND 0.020 ug/l ND 0.010 ug/l 5.89 ug/l 3S1) 0.216 0.020 ug/l 0.225 0.010 ug/l 5.90 ug/l 128-BSD1) 0.0874 0.020 ug/l 0.102 0.010 ug/l 5.75 ug/l 8K1128-MS1) 0.198 0.020 ug/l 0.216 0.010 ug/l	Result Limit Units Level -BLK1 ND 0.020 ug/l ND 0.010 ug/l 5.89 ug/l 5.07	Result Limit Units Level Result -BLK1 ND	Result Limit Units Level Result %REC -BLK1 ND	Result Limit Units Level Result %REC Limits -BLK1 ND	Result Limit Units Level Result %REC Limits RPD	Result Limit Units Level Result %REC Limits RPD Limit -BLK1 ND 0.020 ug/l ND 0.010 ug/l 5.07 116 65-154



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337

Attention: Tony Morgan

Project ID: Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K1105 Extracted: 11/11/08										
Blank Analyzed: 11/11/2008-11/14/200	8 (C8K1105-B	LK1)								
Atrazine	ND	0.50	ug/l							
Benzo(a)pyrene	ND	0.10	ug/l							
Di(2-ethylhexyl)adipate	ND	5.0	ug/l							
Di(2-ethylhexyl)phthalate	ND	3.0	ug/l							
Hexachlorobenzene	ND	0.50	ug/l							
Hexachlorocyclopentadiene	ND	1.0	ug/l							
Molinate	ND	2.0	ug/l							
Simazine	ND	1.0	ug/l							
Thiobencarb	ND	1.0	ug/l							
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.92		ug/l	5.00		98	70-130			
Surrogate: Triphenylphosphate	4.68		ug/l	5.00		94	70-130			
Surrogate: Perylene-d12	3.93		ug/l	5.00		79	70-130			
LCS Analyzed: 11/11/2008-11/17/2008	(C8K1105-BS	1)								MNRI
Atrazine	6.51	0.50	ug/l	5.00		130	70-130			
Benzo(a)pyrene	4.00	0.10	ug/l	5.00		80	70-130			
Di(2-ethylhexyl)adipate	9.49	5.0	ug/l	10.0		95	70-130			
Di(2-ethylhexyl)phthalate	9.29	3.0	ug/l	10.0		93	70-130			
Hexachlorobenzene	4.83	0.50	ug/I	5.00		97	70-130			
Hexachlorocyclopentadiene	11.7	1.0	ug/l	10.0		117	70-130			
Molinate	5.63	2.0	ug/l	5.00		113	70-130			
Simazine	7.13	1.0	ug/I	5.00		143	70-130			L
Thiobencarb	6.24	1.0	ug/l	5.00		125	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.29		ug/l	5.00		106	70-130			
Surrogate: Triphenylphosphate	4.79		ug/I	5.00		96	70-130			
Surrogate: Perylene-d12	3.84		ug/l	5.00		77	70-130			
LCS Dup Analyzed: 11/11/2008-11/17/	2008 (C8K110	5-BSD1)								
Atrazine	6.37	0.50	ug/l	5.00		127	70-130	2	10	
Benzo(a)pyrene	4.00	0.10	ug/l	5.00		80	70-130	0	10	
Di(2-ethylhexyl)adipate	7.70	5.0	ug/l	10.0		77	70-130	21	10	R-7
Di(2-ethylhexyl)phthalate	7.63	3.0	ug/l	10.0		76	70-130	20	10	R-7
Hexachlorobenzene	4.55	0.50	ug/l	5.00		91	70-130	6	10	
Hexachlorocyclopentadiene	11.3	1.0	ug/l	10.0		113	70-130	3	15	
Molinate	5.66	2.0	ug/l	5.00		113	70-130	1	10	
Simazine	6.82	1.0	ug/l	5.00		136	70-130	4	10	L
Thiobencarb	5.82	1.0	ug/l	5.00		116	70-130	7	5	R-7

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham

Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K1105 Extracted: 11/11/08										
LCS Dup Analyzed: 11/11/2008-11/17/2	008 (C8K110	5-BSD1)								
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.74		ug/l	5.00		95	70-130			
Surrogate: Triphenylphosphate	4.64		ug/l	5.00		93	70-130			
Surrogate: Perylene-d12	3.86		ug/l	5.00		77	70-130			



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337

Attention: Tony Morgan

Project ID: Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K0618 Extracted: 11/06/0	8									
Blank Analyzed: 11/06/2008 (C8K06	18-BLK1)									
Alachlor	ND	1.0	ug/l							C
Endrin	ND	0.10	ug/I							
Heptachlor	ND	0.010	ug/l							$C^{\prime\prime}$
Heptachlor epoxide	ND	0.010	ug/l							
Lindane (gamma-BHC)	ND	0.20	ug/l							
Methoxychlor	ND	10	ug/l							
Chlordane	ND	0.10	ug/l							
Toxaphene	ND	1.0	ug/l							
Aroclor 1016	ND	0.26	ug/l							
Aroclor 1221	ND	0.19	ug/l							
Aroclor 1232	ND	0.23	ug/l							
Aroclor 1242	ND	0.26	ug/l							
Aroclor 1248	ND	0.30	ug/l							
Aroclor 1254	ND	0.33	ug/l							
Aroclor 1260	ND	0.36	ug/I							
PCBs as Decachlorobiphenyl (DCB)	ND	0.50	ug/l							
LCS Analyzed: 11/06/2008 (C8K0618	8-BS1)									
Alachlor	1.42	1.0	ug/l	1.01		140	70-130			C. L
Endrin	0.115	0.10	ug/l	0.101		113	70-130			
Heptachlor	0.128	0.010	ug/l	0.101		126	70-127			
Heptachlor epoxide	0.112	0.010	ug/l	0.101		110	70-127			
Lindane (gamma-BHC)	0.111	0.20	ug/l	0.101		109	77-128			
Methoxychlor	0.623	10	ug/l	0.507		123	70-130			
LCS Analyzed: 11/06/2008 (C8K061)	8-BS2)									
Aroclor 1016	5.76	0.26	ug/l	5.07		114	70-130			

TestAmerica Ontario



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

ORGANOHALIDE PESTICIDES AND COMMERCIAL PCB PRODUCTS (EPA 505)

Analyta	Danila	Reporting	The his	Spike	Source	0/ DEC	%REC	DDD	RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K0618 Extracted: 11/06/08										
LCS Dup Analyzed: 11/06/2008 (C8K0	618-BSD1)									
Alachlor	0.909	1.0	ug/l	0.609		149	70-130	7	20	C. L
Endrin	0.0718	0.10	ug/l	0.0609		118	70-130	4	20	
Heptachlor	0.0789	0.010	ug/l	0.0609		130	70-127	3	20	C. L
Heptachlor epoxide	0.0711	0.010	ug/l	0.0609		117	70-127	6	20	
Lindane (gamma-BHC)	0.0692	0.20	ug/I	0.0609		114	77-128	4	20	
Methoxychlor	0.393	10	ug/l	0.304		129	70-130	5	20	
Matrix Spike Analyzed: 11/06/2008 (Ca	3K0618-MS1)			Source: C	RK0176-	01			
Alachlor	1.50	1,0	ug/l	0.985	ND	152	65-135			M1
Endrin	0.121	0.10	ug/l	0.0985	ND	122	65-135			
Heptachlor	0.130	0.010	ug/l	0.0985	ND	132	65-135			
Heptachlor epoxide	0.119	0.010	ug/l	0.0985	ND	120	65-135			
Lindane (gamma-BHC)	0.119	0.20	ug/l	0.0985	ND	121	65-135			
Methoxychlor	0.655	10	ug/l	0.492	0.0740	118	65-135			



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

CHLORINATED ACIDS (EPA 515.4)

5.74		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K1104 Extracted: 11/11/08										
Blank Analyzed: 11/12/2008-11/13/2008	8 (C8K1104-I	BLK1)								
Bentazon	ND	2.0	ug/l							
2,4-D	ND	10	ug/l							C
Dalapon	ND	10	ug/I							
Dacthal acid metabolites	ND	1.0	ug/l							
Dicamba	ND	1.5	ug/l							
Dinoseb	ND	2.0	ug/l							
Pentachlorophenol	ND	0.20	ug/l							
Picloram	ND	1.0	ug/l							
2,4,5-TP (Silvex)	ND	1.0	ug/l							
Surrogate: 2,4-Dichlorophenylacetic acid	19.1		ug/l	20.2		94	70-130			
LCS Analyzed: 11/12/2008-11/13/2008	(C8K1104-B5	S1)								
Bentazon	1.04	2.0	ug/l	0.810		129	70-130			
2,4-D	1.07	10	ug/l	0.810		133	70-130			C. L
Dalapon	0.643	10	ug/l	0.810		79	70-130			
Dacthal acid metabolites	0.790	1.0	ug/I	0.810		98	70-130			
Dicamba	0.411	1.5	ug/l	0.405		102	70-130			
Dinoseb	0.876	2.0	ug/l	0.810		108	70-130			
Pentachlorophenol	0.0826	0.20	ug/l	0.0810		102	70-130			
Picloram	0.443	1.0	ug/l	0.405		110	70-130			
2,4,5-TP (Silvex)	0.214	1.0	ug/l	0.202		106	70-130			
Surrogate: 2,4-Dichlorophenylacetic acid	20.5		ug/l	20.2		101	70-130			
LCS Dup Analyzed: 11/12/2008-11/13/2	2008 (C8K110	04-BSD1)								
Bentazon	2.32	2.0	ug/l	2.43		96	70-130	30	20	R-7
2,4-D	3.00	10	ug/l	2.43		123	70-130	7	20	
Dalapon	2.25	10	ug/l	2.43		93	70-130	15	20	
Dacthal acid metabolites	2.56	1.0	ug/l	2.43		105	70-130	8	20	
Dicamba	1.21	1.5	ug/l	1.21		100	70-130	2	20	
Dinoseb	2.67	2.0	ug/l	2.43		110	70-130	1	20	
Pentachlorophenol	0.230	0.20	ug/I	0.243		95	70-130	8	20	
Picloram	1.33	1.0	ug/l	1.21		110	70-130	0	20	
2,4,5-TP (Silvex)	0.638	1.0	ug/l	0.607		105	70-130	1	20	
Surrogate: 2,4-Dichlorophenylacetic acid	18.9		ug/l	20.2		93	70-130			

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

CHLORINATED ACIDS (EPA 515.4)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K1104 Extracted: 11/11/08										
Matrix Spike Analyzed: 11/12/2008-11/	/13/2008 (C81	K1104-MS1)			Source: (CRJ1148-0	2RE1			
Bentazon	1.31	2.0	ug/l	0.806	ND	162	70-130			ΔII
2,4-D	1.10	10	ug/l	0.806	ND	136	70-130			MI
Dalapon	0.626	10	ug/l	0.806	ND	78	70-130			
Dacthal acid metabolites	0.840	1.0	ug/l	0.806	ND	104	70-130			
Dicamba	0.431	1.5	ug/l	0,403	ND	107	70-130			
Dinoseb	0.847	2.0	ug/I	0.806	ND	105	70-130			
Pentachlorophenol	0.0803	0.20	ug/l	0.0806	ND	100	70-130			
Picloram	0.479	1.0	ug/l	0.403	ND	119	70-130			
2,4,5-TP (Silvex)	0.212	1.0	ug/I	0.201	ND	105	70-130			
Surrogate: 2,4-Dichlorophenylacetic acid	19.8		ug/l	20.1		98	70-130			
Matrix Spike Analyzed: 11/12/2008-11/	13/2008 (C8I	K1104-MS2)			Source: C	CRJ1148-0	3RE1			
Bentazon	0.719	2.0	ug/I	0.806	ND	89	70-130			M2
2,4-D	1.78	10	ug/l	0.806	ND	220	70-130			MI
Dalapon	2.82	10	ug/l	0.806	ND	350	70-130			MI
Dacthal acid metabolites	0.845	1.0	ug/I	0.806	ND	105	70-130			
Dicamba	0.410	1.5	ug/l	0.403	ND	102	70-130			
Dinoseb	0.859	2.0	ug/l	0.806	ND	107	70-130			
Pentachlorophenol	0.0812	0.20	ug/I	0.0806	0.0120	86	70-130			
Picloram	0.581	1.0	ug/l	0.403	ND	144	70-130			MI
2,4,5-TP (Silvex)	0.202	1.0	ug/l	0.202	ND	100	70-130			
Surrogate: 2,4-Dichlorophenylacetic acid	22.3		ug/I	20.2		111	70-130			

TestAmerica Ontario



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K0724 Extracted: 11	1/07/08									
Blank Analyzed: 11/07/2008 (C	(8K0724-BLK1)									
Aldicarb Sulfoxide	ND	3.0	ug/l							
Aldicarb Sulfone	ND	2.0	ug/l							
Oxamyl	ND	20	ug/l							
Methomyl	ND	2.0	ug/l							
3-Hydroxycarbofuran	ND	3.0	ug/I							
Aldicarb	ND	3.0	ug/l							
Carbofuran	ND	5.0	ug/l							C
Carbaryl	ND	5.0	ug/I							
LCS Analyzed: 11/07/2008 (C8	K0724-BS1)									
Aldicarb Sulfoxide	11.9	3.0	ug/l	10.0		119	80-120			
Aldicarb Sulfone	11.7	2.0	ug/l	10.0		117	80-120			
Oxamyl	11.6	20	ug/l	10.0		116	80-120			
Methomyl	12.0	2.0	ug/l	10.0		120	80-120			
3-Hydroxycarbofuran	11.3	3.0	ug/l	10.0		113	80-120			
Aldicarb	11.3	3.0	ug/l	10.0		113	80-120			
Carbofuran	12.7	5.0	ug/I	10.0		127	80-120			C. L.
Carbaryl	11.2	5.0	ug/l	10.0		112	80-120			
LCS Dup Analyzed: 11/08/2008	8 (C8K0724-BSD1)									
Aldicarb Sulfoxide	22.1	3.0	ug/l	20.0		111	80-120	7	20	
Aldicarb Sulfone	21.8	2.0	ug/l	20.0		109	80-120	7	20	
Oxamyl	21.8	20	ug/l	20.0		109	80-120	7	20	
Methomyl	21.8	2.0	ug/l	20.0		109	80-120	9	20	
3-Hydroxycarbofuran	21.2	3.0	ug/l	20.0		106	80-120	7	20	
Aldicarb	20.2	3.0	ug/l	20.0		101	80-120	12	20	
Carbofuran	23.7	5.0	ug/l	20.0		118	80-120	7	20	
Carbaryl	20.9	5.0	ug/I	20.0		104	80-120	7	20	
			1.45							

TestAmerica Ontario

1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337

Attention: Tony Morgan

Project ID: Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

CARBAMATES/CARBAMOXYLOXIME PESTICIDES BY HPLC (EPA 531.1)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K0724 Extracted: 11/07/08										
Matrix Spike Analyzed: 11/10/2008 (C8	K0724-MS1)				Source: C	CRK0237-	01			
Aldicarb Sulfoxide	25.1	3.0	ug/l	20.0	ND	125	65-135			
Aldicarb Sulfone	25.1	2.0	ug/l	20.0	ND	125	65-135			
Oxamyl	25.0	20	ug/l	20.0	ND	125	65-135			
Methomyl	25.4	2.0	ug/l	20.0	ND	127	65-135			
3-Hydroxycarbofuran	24.2	3.0	ug/l	20.0	ND	121	65-135			
Aldicarb	20.9	3.0	ug/l	20.0	ND	104	65-135			
Carbofuran	25.8	5.0	ug/l	20.0	ND	129	65-135			
Carbaryl	26.3	5.0	ug/l	20.0	ND	132	65-135			



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

ENDOTHALL (EPA 548.1)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C8K0704 Extracted; 11/07/08										
Blank Analyzed: 11/10/2008 (C8K0704-	BLK1)									
Endothall	ND	45	ug/l							
LCS Analyzed: 11/10/2008 (C8K0704-B	S1)									
Endothall	59.8	45	ug/l	50.0		120	45-125			
LCS Dup Analyzed: 11/10/2008 (C8K07	(04-BSD1)									
Endothall	61.3	45	ug/l	50.0		123	45-125	3	35	
Matrix Spike Analyzed: 11/10/2008 (C8	K0704-MS1				Source: (CRK0236-	01			
Endothall	9.89	45	ug/l	50.0	ND	20	45-125			M2



Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

GLYPHOSATE (EPA 547)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C8K0728 Extracted: 11/09/08										
Blank Analyzed: 11/09/2008 (C8K0728-	BLK1)									
Glyphosate	ND	25	ug/l							
LCS Analyzed: 11/09/2008 (C8K0728-B	S1)									
Glyphosate	24.1	25	ug/l	25.0		96	80-110			
LCS Dup Analyzed: 11/10/2008 (C8K07	28-BSD1)									
Glyphosate	51.1	25	ug/l	50.0		102	80-110	6	10	
Matrix Spike Analyzed: 11/09/2008 (C8	K0728-MS1)				Source: C	CRK0040-	01			
Glyphosate	25.6	25	ug/l	25.0	ND	102	80-110			
Matrix Spike Analyzed: 11/09/2008 (C8	K0728-MS2)				Source: C	CRK0046-	01			
Glyphosate	25.0	25	ug/l	25.0	ND	100	80-110			



Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: C8K0627 Extracted: 11/06/	08									
Duplicate Analyzed: 11/06/2008 (C	8K0627-DUP1)				Source: C	CRK0176-	01			HFT
pH	7.35	NA	pH Units		7.35			0	5	
Duplicate Analyzed: 11/06/2008 (C8	3K0627-DUP2)				Source: C	RK0230-	04			HFT
pH	7.90	NA	pH Units		7.90			0	5	
Batch: C8K0628 Extracted: 11/06/	08									
Blank Analyzed: 11/06/2008 (C8K0	628-BLK1)									
Odor	ND	1.0	T.O.N.							
Batch: C8K0631 Extracted: 11/06/	08									
Duplicate Analyzed: 11/06/2008 (C8	3K0631-DUP1)				Source: C	CRK0158-	03			pH
Color	ND	1	Color Units		ND				20	
Batch: C8K0634 Extracted: 11/06/	08									
Blank Analyzed: 11/06/2008 (C8K0	634-BLK1)									
Turbidity	ND	0.10	NTU							
Duplicate Analyzed: 11/06/2008 (C8	3K0634-DUP1)				Source: (CRK0158-	03			
Turbidity	ND	0.10	NTU		ND				10	



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

METALS

		Reporting	3	Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K10116 Extracted: 11/10/08										
Blank Analyzed: 11/11/2008-11/12/2008	8 (8K10116-B	LK1)								
Calcium	ND	0.10	mg/l							
Iron	ND	0.040	mg/I							
Magnesium	ND	0.020	mg/l							
Potassium	ND	0.50	mg/l							
Silicon	ND	0.11	mg/l as Silica							
Sodium	ND	0.50	mg/l							
Strontium	ND	0.020	mg/l							
LCS Analyzed: 11/11/2008-11/12/2008	(8K10116-BS	1)								
Calcium	1.04	0.10	mg/l	1.00		104	85-115			
Iron	0.976	0.040	mg/l	1.00		98	85-115			
Magnesium	1.00	0.020	mg/l	1.00		100	85-115			
Potassium	9.78	0.50	mg/l	10.0		98	85-115			
Silicon	9.98	0.11	mg/l as Silica	10.7		93	85-115			
Sodium	10.2	0.50	mg/l	10.0		102	85-115			
Strontium	0.931	0.020	mg/l	1.00		93	85-115			
Matrix Spike Analyzed: 11/11/2008-11/	/12/2008 (8K1	0116-MS1)			Source: I	RK0296-0	1			
Calcium	53.2	0.10	mg/l	1.00	53.5	-35	70-130			MHA
Iron	1.00	0.040	mg/l	1.00	ND	100	70-130			
Magnesium	11.0	0.020	mg/l	1.00	9.83	118	70-130			MHA
Potassium	15.0	0.50	mg/l	10.0	5.36	97	70-130			
Silicon	28.5	0.11	mg/l as Silica	10.7	18.1	97	70-130			
Sodium	101	0.50	mg/l	10.0	90.0	109	70-130			MHA
Strontium	1.30	0.020	mg/l	1.00	0.328	97	70-130			
Matrix Spike Analyzed: 11/11/2008-11/	12/2008 (8K1	0116-MS2)			Source: C	RK0176-	01			
Calcium	259	0.10	mg/I	1.00	270	-1180	70-130			MHA
Iron	1.21	0.040	mg/I	1.00	0.249	96	70-130			
Magnesium	58.4	0.020	mg/l	1.00	59.4	-99	70-130			MHA
Potassium	19.1	0.50	mg/l	10.0	7.94	112	70-130			
Silicon	45.1	0.11	mg/l as Silica	10.7	35.0	94	70-130			
Sodium	1370	1.0	mg/l	10.0	1360	106	70-130			MHA
Strontium	8.88	0.020	mg/l	1.00	8.29	59	70-130			λtHA

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

METALS

		Reporting	g	Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K10116 Extracted: 11/10	/08									
Matrix Spike Dup Analyzed: 11/1	1/2008-11/12/2008	(8K10116-N	ISD1)		Source: I	RK0296-0	1			
Calcium	53.6	0.10	mg/l	1.00	53.5	13	70-130	1	20	MHA
Iron	0.998	0.040	mg/l	1.00	ND	100	70-130	1	20	
Magnesium	10.9	0.020	mg/I	1.00	9.83	107	70-130	1	20	MHA
Potassium	15.4	0.50	mg/l	10.0	5.36	100	70-130	2	20	
Silicon	28.3	0.11	mg/l as Silica	10.7	18.1	96	70-130	1	20	
Sodium	100	0.50	mg/I	10.0	90.0	104	70-130	1	20	MHA
Strontium	1.30	0.020	mg/l	1.00	0.328	97	70-130	0	20	
Batch: 8K10129 Extracted: 11/10	/08									
Blank Analyzed: 11/10/2008 (8K10	0129-BLK1)									
Mercury	ND	0.00020	mg/l							
LCS Analyzed: 11/10/2008 (8K101	129-BS1)									
Mercury	0.00869	0.00020	mg/l	0.00800		109	85-115			
Matrix Spike Analyzed: 11/10/200	8 (8K10129-MS1)				Source: I	RK0263-0	1			
Mercury	0.00849	0.00020	mg/l	0.00800	ND	106	70-130			
Matrix Spike Dup Analyzed: 11/10	D/2008 (8K10129-N	ISD1)			Source: I	RK0263-0	1			
Mercury	0.00866	0.00020	mg/l	0.00800	ND	108	70-130	2	20	
Ratch: 8K10149 Extracted: 11/10	/08									

Batch: 8K10149 Extracted: 11/10/08

Blank Analyzed: 11/11/2008-11/12/2008 (8K10149-BLK1)

Aluminum	ND	10	ug/l
Uranium pCi/L (CA)	ND	1.0	pCi/L
Antimony	ND	2.0	ug/I
Arsenie	ND	1.0	ug/l
Barium	ND	1.0	ug/l
Beryllium	ND	0.50	ug/I
Cadmium	ND	1.0	ug/I
Chromium	ND	2.0	ug/l
Copper	ND	2.0	ug/I
Lead	ND	1.0	ug/l
Manganese	ND	1.0	ug/l
Nickel	ND	2.0	ug/I
Selenium	ND	2.0	ug/l

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham



Layne Christensen 11001 Etiwanda Avenue

Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K10149 Extracted: 11	/10/08									
Blank Analyzed: 11/11/2008-11	1/12/2008 (8K10149-BI	LK1)								
Silver	ND	1.0	ug/l							
Thallium	ND	1.0	ug/l							
Zinc	ND	20	ug/l							
LCS Analyzed: 11/11/2008-11/	12/2008 (8K10149-BS1	1)								
Aluminum	80.7	10	ug/l	80.0		101	85-115			
Uranium pCi/L (CA)	53.5	1.0	pCi/L	53.6		100	85-115			
Antimony	78.9	2.0	ug/l	80.0		99	85-115			
Arsenic	78.1	1.0	ug/l	80,0		98	85-115			
Barium	76.4	1.0	ug/l	80.0		95	85-115			
Beryllium	74.1	0.50	ug/l	80.0		93	85-115			
Cadmium	75.8	1.0	ug/l	80.0		95	85-115			
Chromium	80.2	2.0	ug/l	80.0		100	85-115			
Copper	79.6	2.0	ug/l	80.0		100	85-115			
Lead	78.2	1.0	ug/l	80.0		98	85-115			
Manganese	78.5	1.0	ug/l	80.0		98	85-115			M-3
Nickel	79.6	2.0	ug/l	80.0		99	85-115			
Selenium	73.5	2.0	ug/l	80.0		92	85-115			
Silver	79.8	1.0	ug/l	80.0		100	85-115			
Thallium	79.6	1.0	ug/I	80.0		100	85-115			
Zinc	74.1	20	ug/l	80.0		93	85-115			
Matrix Spike Analyzed: 11/11/	2008-11/12/2008 (8K10	0149-MS1)			Source: I	RK1016-0)1			
Aluminum	87.9	10	ug/l	80.0	ND	110	70-130			
Uranium pCi/L (CA)	66.6	1.0	pCi/L	53.6	5.92	113	70-130			
Antimony	82.2	2.0	ug/l	80.0	ND	103	70-130			
Arsenic	80.0	1.0	ug/I	80.0	1.09	99	70-130			
Barium	150	1.0	ug/l	80.0	66.5	104	70-130			
Beryllium	77.3	0.50	ug/l	80.0	ND	97	70-130			
Cadmium	74.5	1.0	ug/I	80.0	ND	93	70-130			
Chromium	93.3	2.0	ug/l	80.0	8.41	106	70-130			
Copper	76.4	2.0	ug/l	80.0	1.49	94	70-130			
Lead	78.3	1.0	ug/I	80.0	ND	98	70-130			
Manganese	79.5	1.0	ug/l	80.0	ND	99	70-130			
Nickel	80.5	2.0	ug/l	80.0	2.98	97	70-130			
Selenium	76.6	2.0	ug/l	80.0	2,69	92	70-130			
Silver	75.0	1.0	ug/l	80.0	ND	94	70-130			

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham

Project Manager



Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Attention: Tony Morgan

Project ID: Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

> Data Qualifiers

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit
Batch: 8K10149 Extracted: 1	1/10/08								
Matrix Spike Analyzed: 11/11	/2008-11/12/2008 (8K	10149-MS1)			Source: I	RK1016-0	1		
Thallium	77.0	1.0	ug/l	80.0	ND	96	70-130		
Zinc	69.8	20	ug/l	80.0	3.01	83	70-130		
Matrix Spike Analyzed: 11/11	/2008-11/13/2008 (8K	10149-MS2)			Source: I	RK0279-0	1		
Aluminum	94.3	10	ug/l	80.0	17.0	97	70-130		
Uranium pCi/L (CA)	166	1.0	pCi/L	53.6	111	102	70-130		
Antimony	92.0	2.0	ug/l	80.0	0.214	115	70-130		
Arsenic	85.6	1.0	ug/l	80.0	6.17	99	70-130		
Barium	271	1.0	ug/l	80.0	167	130	70-130		
Beryllium	83.7	0.50	ug/l	80.0	ND	105	70-130		
Cadmium	80.0	1.0	ug/l	80.0	ND	100	70-130		
Chromium	85.6	2.0	ug/l	80.0	1.04	106	70-130		
Copper	79.5	2.0	ug/l	80.0	3.87	94	70-130		
Lead	74.0	1,0	ug/l	80.0	1.57	91	70-130		
Manganese	3140	1.0	ug/l	80.0	2920	278	70-130		
Nickel	82.9	2.0	ug/l	80.0	4.78	98	70-130		
Selenium	74.6	2.0	ug/l	80.0	5.74	86	70-130		
Silver	79.4	1.0	ug/l	80.0	ND	99	70-130		
Thallium	70.4	1.0	ug/l	80.0	0.269	88	70-130		
Zinc	111	20	ug/l	80.0	52.0	74	70-130		
Matrix Spike Dup Analyzed: 1	1/11/2008-11/12/2008	(8K10149-MSI	01)		Source: I	RK1016-0	1		
Aluminum	92.4	10	ug/l	80.0	ND	115	70-130	5	20
Uranium pCi/L (CA)	66.1	1.0	pCi/L	53.6	5.92	112	70-130	1	20
Antimony	84.9	2.0	ug/l	80.0	ND	106	70-130	3	20
Arsenic	79.9	1.0	ug/l	80.0	1.09	98	70-130	0	20
Barium	161	1.0	ug/l	80.0	66.5	118	70-130	7	20
Beryllium	69.0	0.50	ug/l	80.0	ND	86	70-130	11	20
Cadmium	76.8	1.0	ug/l	80.0	ND	96	70-130	3	20
Chromium	93.1	2.0	ug/l	80.0	8.41	106	70-130	Ô	20
Copper	76.7	2.0	ug/l	80.0	1.49	94	70-130	0	20
Lead	78.4	1.0	ug/l	80.0	ND	98	70-130	0	20
Manganese	79.8	1.0	ug/l	80.0	ND	100	70-130	0	20
Nickel	81.4	2.0	ug/l	80.0	2.98	98	70-130	1	20
Selenium	75.4	2.0	ug/I	80.0	2.69	91	70-130	2	20
Silver	77.1	1.0	ug/l	80.0	ND	96	70-130	3	20
Thallium	74.4	1.0	ug/l	80.0	ND	93	70-130	3	20

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

METALS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K10149 Extracted: 11/10/08										
Matrix Spike Dup Analyzed: 11/11/200	8-11/12/2008 (8K10149-MS	D1)		Source: I	RK1016-0	1			
Zinc	70.9	20	ug/l	80.0	3.01	85	70-130	2	20	



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K06062 Extracted: 11	1/06/08									
Blank Analyzed: 11/06/2008 (8	3K06062-BLK1)									
Chloride	ND	0.50	mg/l							
Nitrate-N	ND	0.11	mg/l							
Nitrate-NO3	ND	0.50	mg/l							
Nitrite-N	ND	0.15	mg/l							
Nitrate/Nitrite-N	ND	0.15	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 11/06/2008 (8K	(06062-BS1)									
Chloride	5.10	0.50	mg/l	5.00		102	90-110			M-3
Nitrate-N	1.15	0.11	mg/l	1.13		102	90-110			M-3
Nitrate-NO3	5.10	0.50	mg/I	5.00		102	90-110			M-3
Nitrite-N	1.49	0.15	mg/l	1.52		98	90-110			
Sulfate	9.93	0.50	mg/l	10.0		99	90-110			M-3
Matrix Spike Analyzed: 11/06/	/2008 (8K06062-MS1)				Source: I	RK0423-2	20			
Chloride	1.00E9	0.50	mg/l	5.00	1.00E9	0	80-120			
Nitrate-N	1.21	0.11	mg/l	1.13	ND	107	80-120			
Nitrate-NO3	5.37	0.50	mg/l	5.00	0.262	102	80-120			
Nitrite-N	1.54	0.15	mg/l	1.52	ND	101	80-120			
Sulfate	1.00E9	0.50	mg/l	10.0	1,00E9	0	80-120			
Matrix Spike Analyzed: 11/06/	/2008 (8K06062-MS2)				Source: I	RK0542-0	01			
Chloride	1.00E9	0.50	mg/l	5.00	1.00E9	0	80-120			
Nitrate-N	1,00E9	0.11	mg/I	1.13	1.00E9	0	80-120			
Nitrite-N	1.41	0.15	mg/l	1.52	ND	93	80-120			
Sulfate	1.00E9	0.50	mg/l	10.0	1.00E9	0	80-120			
Matrix Spike Dup Analyzed: 1	1/06/2008 (8K06062-N	ISD1)			Source: I	RK0423-2	20			
Chloride	1.00E9	0.50	mg/l	5.00	1.00E9	0	80-120	0	20	
Nitrate-N	1.21	0.11	mg/l	1.13	ND	107	80-120	0	20	
Nitrate-NO3	5.35	0.50	mg/l	5.00	0.262	102	80-120	.0.	20	
Nitrite-N	1.48	0.15	mg/l	1.52	ND	97	80-120	4	20	
Sulfate	1.00E9	0.50	mg/l	10.0	1.00E9	0	80-120	0	20	

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K06100 Extracted: 11/06/08										
Blank Analyzed: 11/06/2008 (8K06100-	-BLK1)									
Chromium VI	ND	0.0010	mg/l							
LCS Analyzed: 11/06/2008 (8K06100-I	3S1)									
Chromium VI	0.0489	0.0010	mg/l	0.0500		98	90-110			
Matrix Spike Analyzed: 11/06/2008 (81	K06100-MS1)				Source: C	CRK0176-	01			
Chromium VI	0.0481	0.0010	mg/l	0.0500	ND	96	90-110			
Matrix Spike Dup Analyzed: 11/06/200	08 (8K06100-N	(ISD1)			Source: C	CRK0176-	01			
Chromium VI	0.0480	0.0010	mg/l	0.0500	ND	96	90-110	0	10	
Batch: 8K06107 Extracted: 11/06/08										
Blank Analyzed: 11/06/2008 (8K06107-	-BLK1)									
Surfactants (MBAS)	ND	0.10	mg/l							
LCS Analyzed: 11/06/2008 (8K06107-E	BS1)									
Surfactants (MBAS)	0.256	0.10	mg/l	0.250		102	90-110			
Matrix Spike Analyzed: 11/06/2008 (8F	(06107-MS1)				Source: C	CRK0176-	01			
Surfactants (MBAS)	0.278	0.10	mg/l	0.250	ND	111	50-125			
Matrix Spike Dup Analyzed: 11/06/200	08 (8K06107-N	(ISD1)			Source: C	CRK0176-	01			
Surfactants (MBAS)	0.279	0.10	mg/l	0.250	ND	112	50-125	0	20	
Batch: 8K06109 Extracted: 11/06/08										
Duplicate Analyzed: 11/06/2008 (8K06	109-DUP1)				Source: C	RK0176-	01			
Carbon Dioxide	19.4	2.0	mg/I		17.6			10	20	HFTa

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham Project Manager



THE CENDER IN CHAIRCHMENTAL LEGIT

Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337

Attention: Tony Morgan

Project ID: Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K07005 Extracted: 11/07/08										
Blank Analyzed: 11/07/2008 (8K07005-	BLK1)									
Fluoride	ND	0.10	mg/l							
LCS Analyzed: 11/07/2008 (8K07005-B	S1)									
Fluoride	0.992	0.10	mg/l	1.00		99	90-110			
Matrix Spike Analyzed: 11/07/2008 (8K	(07005-MS1)				Source: I	RK0371-0)1			
Fluoride	1.94	0.10	mg/l	1.00	0.992	95	80-120			
Matrix Spike Dup Analyzed: 11/07/2003	8 (8K07005-1	MSD1)			Source: I	RK0371-0)1			
Fluoride	1.96	0.10	mg/l	1.00	0.992	96	80-120	1	20	
Batch: 8K07008 Extracted: 11/07/08										
Blank Analyzed: 11/07/2008 (8K07008-	BLK1)									
Total Organic Carbon	ND	0.10	mg/l							
LCS Analyzed: 11/07/2008 (8K07008-B	S1)									
Total Organic Carbon	10.2	0.10	mg/l	10.0		102	90-110			
Matrix Spike Analyzed: 11/07/2008 (8K	(07008-MSI)				Source: I	RK0571-0	01			
Total Organic Carbon	12.8	0.10	mg/l	10.0	2.79	101	80-120			
Matrix Spike Dup Analyzed: 11/07/2003	8 (8K07008-1	MSD1)			Source: I	RK0571-0)1			
Total Organic Carbon	12.6	0.10	mg/l	10.0	2.79	99	80-120	2	20	
Batch: 8K07068 Extracted: 11/07/08										
Blank Analyzed: 11/07/2008 (8K07068-	BLK1)									
Ferrous Iron	ND	0.10	mg/I							

TestAmerica Ontario



Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Oualifiers
Batch: 8K07068 Extracted: 11/07/		2	Cinto	Lierei	resuit	, orthogram	Limits		13000	Quanters
LCS Analyzed: 11/07/2008 (8K070)										
Ferrous Iron	5.00	0,10	mg/l	5.00		100	80-120			
Duplicate Analyzed: 11/07/2008 (81	K07068-DUP1)				Source: C	CRK0176-	01			
Ferrous Iron	ND	0.10	mg/l		ND				20	IIFTa
Batch: 8K07071 Extracted: 11/07/	08									
Duplicate Analyzed: 11/07/2008 (81	K07071-DUP1)				Source: I	RK0690-0)5			
pH	8.06	0.100	pH Units		8.07			()	5	HFTa
Batch: 8K07085 Extracted: 11/07/	08									
Blank Analyzed: 11/12/2008 (8K07	085-BLK1)									
Biochemical Oxygen Demand	ND	2.0	mg/l							
LCS Analyzed: 11/12/2008 (8K070)	85-BS1)									
Biochemical Oxygen Demand	176	100	mg/l	198		89	85-115			
LCS Dup Analyzed: 11/12/2008 (8H	(07085-BSD1)									
Biochemical Oxygen Demand	188	100	mg/l	198		95	85-115	7	20	
Batch: 8K10049 Extracted: 11/10/	08									
Blank Analyzed: 11/10/2008 (8K10	049-BLK1)									
Total Dissolved Solids	ND.	10	mg/l							



Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

		Reportin	g	Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K10049 Extracted: 11/10/08										
LCS Analyzed: 11/10/2008 (8K10049-BS	S1)									
Total Dissolved Solids	1010	10	mg/I	1000		101	90-110			
Duplicate Analyzed: 11/10/2008 (8K10049-DUP1)			Source: IRK0413-01							
Total Dissolved Solids	1890	10	mg/l		1940			3	10	
Batch: 8K10052 Extracted: 11/10/08										
Duplicate Analyzed: 11/10/2008 (8K10052-DUP1)					Source: IRK0469-04					
Specific Conductance	2.76	1.0	umhos/cm @ 25C		2.68			3	5	
Reference Analyzed: 11/10/2008 (8K100	52-SRM1)									
Specific Conductance	1030	1.0	umhos/cm @ 25C	994		104	90-110			
Batch: 8K10074 Extracted: 11/10/08										
Blank Analyzed: 11/10/2008 (8K10074-I	BLKI)									
Alkalinity as CaCO3	ND	2.0	mg/l							
Bicarbonate Alkalinity as CaCO3	ND	2.0	mg/l							
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l							
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l							
Duplicate Analyzed: 11/10/2008 (8K10074-DUP1)		Source: IRK0525-13								
Alkalinity as CaCO3	158	2.0	mg/l		156			1	20	
Bicarbonate Alkalinity as CaCO3	158	2.0	mg/l		156			1	20	
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l		ND				20	
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l		ND				20	

TestAmerica Ontario



Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 8K10074 Extracted: 11/10/08	resur	Zillin	Cints	Lievel	resun	70ILLC	Limits	шь	Limit	Quanners
Reference Analyzed: 11/10/2008 (8K10	074-SRM1)									
Alkalinity as CaCO3	232	2.0	mg/l	223		104	90-110			
Batch: 8K11096 Extracted: 11/11/08										
Blank Analyzed: 11/11/2008 (8K11096-	-BLK1)									
Total Cyanide	ND	0.025	mg/l							
LCS Analyzed: 11/11/2008 (8K11096-F	BS1)									
Total Cyanide	0.198	0.025	mg/l	0.200		99	90-110			
Matrix Spike Analyzed: 11/11/2008 (8F	K11096-MS1)				Source: 1	RK0757-0	1			
Total Cyanide	0.192	0.025	mg/l	0.200	ND	96	70-115			
Matrix Spike Dup Analyzed: 11/11/200	08 (8K11096-N	ISD1)			Source: I	RK0757-0	1			
Total Cyanide	0.191	0.025	mg/l	0.200	ND	96	70-115	0	15	
Batch: 8K11123 Extracted: 11/11/08										
Blank Analyzed: 11/11/2008 (8K11123-	-BLK1)									
Ammonia as Ammonium	ND	0.60	mg/l							
LCS Analyzed: 11/11/2008 (8K11123-E	BS1)									
Ammonia as Ammonium	1.28	0.60	mg/l	1.29		99	85-115			
Matrix Spike Analyzed: 11/11/2008 (8F	K11123-MS1)				Source: I	RK0421-0	2			
Ammonia as Ammonium	2.94	0.60	mg/l	2.58	ND	114	75-125			

TestAmerica Ontario





THE ECHOEN IN CHAINOHMENTAE TESTIN

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K11123 Extracted: 11/11	1/08									
Matrix Spike Dup Analyzed: 11/1	1/2008 (8K11123-N	ISD1)			Source: I	RK0421-0)2			
Ammonia as Ammonium	2.94	0.60	mg/l	2.58	ND	114	75-125	0	15	
Batch: 8K12108 Extracted: 11/12	2/08									
Blank Analyzed: 11/12/2008 (8K1	2108-BLK1)									
Total Suspended Solids	ND	10	mg/I							
LCS Analyzed: 11/12/2008 (8K12	108-BS1)									
Total Suspended Solids	998	10	mg/l	1000		100	85-115			
Duplicate Analyzed: 11/12/2008 (8K12108-DUP1)				Source: I	RK0452-0)2			
Total Suspended Solids	ND	10	mg/l		ND				10	
Batch: 8K13117 Extracted: 11/13	3/08									
Blank Analyzed: 11/13/2008 (8K1	3117-BLK1)									
Phosphate (PO4)	ND	0.15	mg/l							
LCS Analyzed: 11/13/2008 (8K13	117-BS1)									
Phosphate (PO4)	2.64	0.15	mg/l	3.07		86	80-120			
Matrix Spike Analyzed: 11/13/200	08 (8K13117-MS1)				Source: I	RK0364-0)3			
Phosphate (PO4)	4.30	0.15	mg/l	3.07	2.14	70	75-125			M2
Matrix Spike Dup Analyzed: 11/1	3/2008 (8K13117-N	ISD1)			Source: I	RK0364-0)3			
Phosphate (PO4)	4.07	0.15	mg/I	3.07	2.14	63	75-125	6	20	M2

TestAmerica Ontario



Layne Christensen 11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

METHOD BLANK/QC DATA

INORGANICS

Acres No. 10	-	Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8K14067 Extracted: 11/14/08										
Blank Analyzed: 11/14/2008 (8K14067-1	BLK1)									
Perchlorate	ND	2.0	ug/l							
LCS Analyzed: 11/14/2008 (8K14067-BS	S1)									
Perchlorate	24.7	2.0	ug/I	25.0		99	85-115			
Matrix Spike Analyzed: 11/15/2008 (8K	14067-MS1)				Source: C	CRK0176-	01			
Perchlorate	25.8	2.0	ug/l	25.0	1.74	96	80-120			
Matrix Spike Dup Analyzed: 11/15/2008	8 (8K14067-1	MSD1)			Source: C	CRK0176-	01			
Perchlorate	29.0	2.0	ug/l	25.0	1.74	109	80-120	12	20	



1014 E. Cooley Dr. Ste A. Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Project ID: _Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

DATA QUALIFIERS AND DEFINITIONS

C	alibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not	
	pacted.	

FT This analysis was performed in the field by the sampler whose name appears on the attached Chain of Custody form.

H Sample analysis performed past method-specified holding time.

HFT Holding time for this test is defined as either

immediately or 15 minutes from collection. Analysis was performed at the laboratory.

HFTa The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.

L Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.

M1 The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

M2 The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

M-3 Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).

MHA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike

Duplicate. pH = 7.5

MNR1

Layne Christensen

Fontana, CA 92337

11001 Etiwanda Avenue

Attention: Tony Morgan

R-7 LFB/LFBD RPD exceeded the acceptance limit. Recovery met acceptance criteria.

RL1 Reporting limit raised due to sample matrix effects.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference
T.O.N. Threshhold Odor Number
SI Units Saturation Index Units



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

Certification Summary

TestAmerica Ontario

Method	Matrix	Nelac	California
EPA 150.1	Water	X	N/A
EPA 180.1	Water	X	X
EPA 504.1	Water	X	X
EPA 505	Water	X	X
EPA 515.4	Water	X	X
EPA 524.2	Water	X	X
EPA 525.2	Water	X	X
EPA 531.1	Water	X	
EPA 547	Water	X	X
EPA 548.1	Water	X	X
Field Test	Water		
SM2120B	Water	N/A	N/A
SM2150B	Water	N/A	N/A

Subcontracted Laboratories

EMS Laboratories-Sub California Cert #1119

117 West Bellvue Drive - Pasadena, CA 91105-2503

Analysis Performed: Asbestos By TEM

Samples: CRK0176-01

STL - St. Louis

13715 Rider Trail North - Earth City, MO 63045

Analysis Performed: Gross Alpha 900.0

Samples: CRK0176-01

Analysis Performed: Radium 226

Samples: CRK0176-01

Analysis Performed: Radium 228

Samples: CRK0176-01

TestAmerica Ontario



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337 Attention: Tony Morgan Project ID: Standard Pricing

Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08 Received: 11/05/08

TestAmerica - Irvine, CA Nelac Cert #01108CA, California Cert #1197, Arizona Cert #AZ0671, Nevada Cert #CA-72

17461 Derian Avenue. Suite 100 - Irvine, CA 92614

Method Performed: Calc

Samples: CRK0176-01

Method Performed:

EPA 150.1

Samples: CRK0176-01

Method Performed:

EPA 160.2

Samples: CRK0176-01

Method Performed:

EPA 200.7

Samples: CRK0176-01

Method Performed:

EPA 200.8

Samples: CRK0176-01

Method Performed:

EPA 218.6

Samples: CRK0176-01

Method Performed:

EPA 245.1

Samples: CRK0176-01

Method Performed:

EPA 300.0

Samples: CRK0176-01

Method Performed:

EPA 314.0

Samples: CRK0176-01

Method Performed:

EPA 350.3

Samples: CRK0176-01

Method Performed:

EPA 365.3

Samples: CRK0176-01

Method Performed:

SM 3500-Fe D

Samples: CRK0176-01

Method Performed:

SM 4500-F-C

Samples: CRK0176-01

Method Performed:

SM2320B

Samples: CRK0176-01

Method Performed:

SM2340B

Samples: CRK0176-01

Method Performed:

SM2510B

TestAmerica Ontario

Charles R. Morrow For Melissa Cunningham

Project Manager



1014 E. Cooley Dr, Ste A, Colton, CA 92324 (909) 370-4667 Fax: (909) 370-1046

Layne Christensen

11001 Etiwanda Avenue Fontana, CA 92337

Attention: Tony Morgan

Project ID: Standard Pricing

_Standard Pricing

Report Number: CRK0176

Sampled: 11/05/08

Received: 11/05/08

TestAmerica - Irvine, CA Nelac Cert #01108CA, California Cert #1197, Arizona Cert #AZ0671, Nevada Cert #CA-72

17461 Derian Avenue. Suite 100 - Irvine, CA 92614

Samples: CRK0176-01

Method Performed:

SM2540C

Samples: CRK0176-01

Method Performed:

SM4500-CN-C,E

Samples: CRK0176-01

SM4500-CO2 C

Method Performed: Samples: CRK0176-01

Method Performed:

SM5210B

Samples: CRK0176-01

Method Performed:

SM5310C

Samples: CRK0176-01

Method Performed:

SM5540-C

Samples: CRK0176-01

FAX (909) 370-1046 | Magnesium | Manganese | Mercury | Nickel | Potassium | Selenium | Silen | Sodium | Thalilium | Thalilium | Vanadium | Vanadium | 48 hours Immediate Turnaround Time*: (check one) *Surcharges may be applied for remaining hold time <48 hours. Temp: .02 Sample Integrity: HO CMS Normal X 72 Hours 24 Hours FIELD (909) 370-4667 ☐ Auminum
☐ Antimony
☐ Arsenic
☐ Barium
☐ Beryllium
☐ Cadmium
☐ Calcium
☐ Chromium
☐ Chromium
☐ Copper
☐ Ico 27-1 600 Date/Time: Date/Time: Yorgan PWS ID#: POE #: 1014 East Cooley Drive, Suite A, Colton, CA 92324 20 LAKE AVAXS No N mples acidified after dechlorination? P.O./Project Name: HBCDe C No X Compliance Sample: Yes Project Manager: Data to state's database? Yes (PWS ID required) Received in Lab by: CHAIN OF CUSTODY FORM - S-08 /6 Beceived by -Received by y Date/Time: Date/Time: EC, Perchlorate, Density 92337 3260B/5030B CJ3CSSC3SSSS 8015 DRO/ORO (Diesel range 8015 GRO (Gas range C4-C12) Zip: CAM Metals-6010B (mercury included) Layne Christensen Company Number of Containers State: CA 7909-095 (909) COCK **emiT** Relinquished by: Relinquished by: Date Sampled Remarks S U Matrix (see Matrix Table) estAmerica Address: 11001 Eitwanda Ave Sampler(s) Name & Signature: TW - Treated Water (Point of Entry) (909)390-2833 RW - Raw Water (Source) Sample I.D RW - Recreational Water DW - Drinking Water SW - Surface Water Fontana Matrix Types GW - Groundwater Client Name: Tel:

Form Rev. 7-10-06

On Ice:

Intact: 1

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project

SUBCONTRACT ORDER

TestAmerica Ontario CRK0176

SENDING LABORATORY:

TestAmerica Ontario 1014 E. Cooley Dr, Ste A

Colton, CA 92324 Phone: (909) 370-4667

Fax: (909) 370-1046

Project Manager: Melissa Cunningham

RECEIVING LABORATORY:

EMS Laboratories-Sub 117 West Bellvue Drive Pasadena, CA 91105-2503 Phone :626-568-4065

Fax: 626-796-5282

Project Location: CA - CALIFORNIA

Receipt Temperature:

C

Ice: Y / N

Analysis	Units	Due	Expires	Comments	
Sample ID: CRK0176-01	Water		Sampled: 11/05/08 12:45		
Asbestos By TEM-O	Present/Not	Pri11/18/08	11/07/08 12:45		
Containers Supplied: 1 Liter Poly (AA)					

Released By

Date/Time

11-6-08 1230

Received By

Date/Time

Released By

Date/Time

Received By

Date/Time

Page 1 of 1

DATE:

November 13, 2008

CLIENT:

TestAmerica, Ontario 1014 E. Cooley Dr, Ste. A

Colton, CA 92324

ATTENTION:

Melissa Cunningham

REFERENCE:

CRK0176

REPORT NO:

125170

SUBJECT:

ANALYSIS OF WATER SAMPLE FOR ASBESTOS BY TEM

ACCREDITED:

California Department of Health Services (ELAP-1119)

The date and times of collection, receipt, filtration, and analysis are as follows:

SAMPLE NO:

CRK0176-01

COLLECTED:

11/5/08 at 1245

RECEIVED:

11/6/08 at 1237

FILTERED:

11/6/08 at 1430

ANALYZED:

11/13/08

The sample was analyzed for fibers >10 μ m in length to conform with the drinking water document, EPA 600 R 94 134, 100.2. This regulation calls for an MCL (maximum contaminant level) of 7 MFL and an analytical sensitivity level of 0.2 MFL.

No asbestos structures >10 μ m in length were detected. The analytical sensitivity of 0.2 MFL was reached.

The results of the analysis and the detection limit are summarized on the following pages.

Respectfully submitted, EMS LABORATORIES, INC.

Laboratory Director

BMK/ah

NOTE: The results of the analysis are based upon the samples submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples.

This report, from a NIST laboratory through NVLAP, must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

This report shall not be reproduced, except in full, without the written approval of EMS Laboratories, Inc.

Any deviation or exclusion from the test method is noted in this cover letter.

Unless otherwise noted in this cover letter, the samples were received properly packaged, clearly identified and intact.

ANALYSIS OF WATER BY TEM (EPA-600 R 94 134) EPA 100.2

LAB NO: 125170 CLIENT: Test America

11/13/2008

1.000			FILTER	MEDIA DATA			
Laboratory Client I.D. I.D.	Туре	Diameter mm	Effective Area mm^2	No. of G.O.	Analyzed Area, mm^2	Sample Volume (ml)	
125170-1	CRK0176-01*	PC	47	1017	10	0.093	60
	7						

^{*} FOR FIBERS > 10um ONLY

INDIVIDUAL ANALYTICAL RESULTS

Laboratory	Client	N	o. of Asbe	stos	Detection	CONCENTRATION (MFL)			
I.D.	I.D.	Str	Str >5um	Str >10um	Limit (MF/L)	Str	Str >5um	Str >10um	
125170-1	CRK0176-01*		-	N.D.	0.2	- To-1) •	N.D.	
								100	

^{*} FOR FIBERS > 10um ONLY

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.

Authorized Signature

TEM 7A (1994)

Analysis of Water by Transmission Electron Microscopy (EPA-600 R 94 134) EPA 100.2

EMS No.	125170			Client	Test Americ	a	
Sample No.	CRK0176-01				Date Analy	zed	11/13/2008
Fibers > 10	µm in length (ch	rvsotile)			BDL*		MFL
Mass (chrys					0		ug/L
					U		ug/L
More/Less the in Sample (c					LESS		
Poisson 95%	6 Confidence In	terval			0	0.7	MFL
Detection Li	mit				0.2		MFL
* BDL : Belo	w Detection Lim	nit; MFL: Million	Fibers per Lit	ter			
		Pari	ticle Size Dist	ribution (Chi	ysotile)		
			Particle Ler	ngth - Micron	s		
O -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 - 4.99	5.00 - 9.99	10 & UP
0	0	0	0	0	0	0	0
			Particle Widt	h - Microns			
O04	.0509	.114	.1519	.224	.2549	.5099	1 & UP

Aspect Ratio L/W

30 - 39.9 40 - 49.9

0 - 9.9

10 - 19.9

20 - 29.9

TEM 7B (1994)

50 - 99

100 - 199

200 & UP

Analysis of Water by Transmission Electron Microscopy (EPA-600/4-83-043)

		Date Analyzed	11/13/2008
Client	Test America		
Sample No.	EMS BLANK		
Fibers (chrysotile	÷)	ND	MFL
> 5 Micron length	n (chrysotile)	ND	MFL
Mass (chrysotile)		0	ug/L
More/Less than 5 in Sample (chrys		LESS	
Sensitivity Level		0.01	MFL

Particle Size Distribution (Chrysotile)

Particle Length - Microns

O -0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1,99	2.00 - 2.49	2.5 & UP
0	0	0	0	0	0
		Particle Width	- Microns		
O04	.0509	.114	.1519	.224	.25 & UP
0	0	0	0	0	0
		Aspect Rat	tio L/W		
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 & UP
0	0	0	0	0	0

